

Bard博士の御略歴



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recherche, Institut des Sciences de la Terre, Observatoire de
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専門分野: 地震工学、地震災害および地震リスク

Pierre-Yves BARD

(Born 11/04/1954 in Valence - 26 - France)

SHORT BIOGRAPHICAL SKETCH

Pierre-Yves Bard, 70 is a senior research scientist at ISTERRE Grenoble (Institute of Earth Sciences, University of Grenoble-Alpes), and at University Gustave-Eiffel (Marne-la-Vallée). From 2008 to 2013, he also had a part-time activity (20%) at ANR (French National Research Agency) as program manager on Natural Hazards and Risks. After a basic education in Science at the Polytechnic School in Paris (1973-1976), he received a Civil Engineering diploma from the Bridges and Roads Engineering School in Paris (ENPC, 1978), and a PhD in Geophysics/Seismology at the University Grenoble-Alpes (1983). He also spent one year (1986-1987) as a visiting scientist at the California Division of Mines and Geology (now California Geological Survey) in Sacramento, where he gained experience in processing strong motion data. Since then, he has been working mainly as a researcher in engineering seismology, trying to bridge the gap between seismologists and earthquake engineers. His research is related with assessment of seismic hazard and estimation of strong ground motion, with a special focus on any kind of site effects related with near-surface heterogeneities. His expertise focuses mainly on site-specific hazard estimates, with applications to urban areas (microzonation studies) or critical facilities. Though retired since January 1st, 2020, he is still a senior research scientist at ISTERRE involved in various ongoing research projects at the national and European levels, and in various consulting activities related to seismic hazard estimation.

His primary activity has been research. His interests, initially focused on site effects, have gradually broadened to include strong motion seismology, seismic hazard estimation (with emphasis on probabilistic approaches), wave propagation in heterogeneous environments, subsurface and structural monitoring using ambient vibrations, soil-structure and site-city interactions, seismic zonation and microzonation, and their translation into regulatory texts or technical guides and recommendations. They have involved theoretical, numerical and instrumental methodological developments, and examples of applications on real sites, with a particular focus on "frugal" methods that can be used in developing countries or countries with moderate seismicity. The so acquired expertise led him to be involved in public actions concerning changes in regulations (updating the French seismic zonation the early 2000's, European projects for harmonized seismic hazard maps, seismic microzonation studies), as well as in the drafting of various technical recommendation documents for hazard studies for critical installations (dams, chemical and nuclear sites) or site surveys. The latter were often facilitated by participation in R&D projects, notably with the French nuclear industry. He also carried out consultancy or inspection missions to determine the seismic design level of various types of structure (Vasco de Gama bridge in Lisbon, Swiss, Slovak and English nuclear power plants, Cadarache site, various hydraulic or tailings dams, facilities in France and abroad, Groningen gas field...).

He always worked in a predominantly academic environment, which has meant a sustained teaching activity (Masters, engineering schools, continuing education and international thematic courses) and student training (supervising around forty engineering or M2 internships and 41 PhD theses). This work has given rise to numerous scientific publications (over 170 papers in peer-reviewed journals, over 250 in conference proceedings), as well as a great deal of "grey literature" (guidelines, study reports, ...).

PRESENT POSITION

Ingénieur Général Honoraire des Ponts, Eaux et Forêts, Senior Scientist at UMR ISTERRE (Institut des Sciences de la Terre, Observatoire de Grenoble)

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EDUCATION / ACADEMIC DEGREES :

- Ecole Polytechnique, Paris 1973 - 1976.
- Civil Engineering (Ecole Nationale des Ponts et Chaussées), Paris 1976 - 1978.
- Doctorat ès Sciences Physiques, University of Grenoble, 1977 - 1983.

PAST POSITIONS :

- 1978-1984: Engineer, Ministry of Equipment, fellowship for doctorate studies, LGIT Grenoble
- 1984 - present : Research scientist, LCPC/IFSTTAR/UGE Paris- LGIT/ISTerre Grenoble.
- 1986-1987 : Visiting scientist at "Office of Strong Motion Studies" du "California Division of Mines of Geology", Sacramento (California) (NATO fellowship).
- 2008 - 2013: In charge of the "Natural Risks", "Haïti2010" and "Tohoku 2011" Research programs at ANR (French National Research Agency, part time 20%)

RESEARCH FIELDS: ENGINEERING SEISMOLOGY, SEISMIC HAZARD AND SEISMIC RISK

- Wave propagation in heterogeneous media.
- Ground motion prediction
- Site effects and seismic microzonation
- Seismic hazard
- Soil-structure Interaction
- System identification and vibrations of civil engineering structures
- Engineering use of ambient vibrations

TEACHING AND TRAINING

Teaching

- Post-graduate courses in "Seismic hazard and Risk" within several universities and engineering schools : Ecole Nationale des Ponts et Chaussées (Paris), Ecole Centrale de Paris, University Louis Pasteur (Strasbourg), University Joseph Fourier, University Marne-la-Vallée, INSA Lyon.
- In charge of the "Engineering seismology" module for the "Erasmus Mundus" European Master in Earthquake Engineering and Engineering seismology (MEEES, see <http://www.meees.org>)
- Lecturer 1993-2012 for the International Training course on "Seismology and Seismic hazard Assessment" (GeoForschungszentrum Potsdam + UNESCO) - (Potsdam, Roorkee, Managua, Nairobi, Beijing, Concepcion/Antofagasta, Pretoria, Bishkek, Heredia/ San Jose, Izmir, Ifrane).
- Lecturer within several Erasmus "intensive programmes" and summer schools: Thessaloniki 1990, 1991, Udine 1991, Cairo 1994, Thessaloniki 1997, Kefallinia 1999.

Supervising of students :

- PhD thesis (41): L. Géli (1983-1985), C. Boutin (1984-1987), J.-C. Gariel (1985-1988), F.J. Chavez-Garcia (1987 - 1991), H. Afra (1988 - 1991), V. Caillot (1988 - 1992), A.-M. Duval (1991 - 1994), M. Hammoutène (1988 - 1994), M. Kahan (1993 - 1996), C. Lachet (1993 - 1996), M. Farsi (1993 - 1996), J. Riepl (1994 - 1997), M. Zaré (1996 - 1999), P. Guéguen (1997-2000), P. Lussou (1998-2001), C. Cornou (1998-2002), C. Beauval (2000-2003), M. Kham (2000-2004), O. Sèbe (2000-2004), S. Bonnefoy-Claudet (2001-2004), F. Dunand (2001-2005), E. Haghshenas (2001-2005), H. Cadet (2004-2007), C. Michel (2004-2007), F. Renalier (2006-2010), A. Mikael (2007-2011), M. Hobiger (2007-2011), B. Derras (co-supervision, Univ. Tlemcen, 2007-2011), M. Brax (2006-2013), A. Senouci (2009-2014), J. Iqbal (2008-2014), A. Sandikkaya (2010-2014), A. Imtiaz (2011-2015), C. Salameh (2013-2016), B. Derras (2013-2017), V. Perron (2013-2017), A. Stambouli (co-supervision Univ. Tlemcen, 2013-2018), H. Dif (co-supervision, Univ. Tlemcen, 2013-2019), C. Aristizabal (2014-2018), C. Durand (2015-2018), A. Pothon (co-supervision, 2016-2020)
- Master 2/DEA : 26; Engineering diplomas : 13

SCIENTIFIC ANIMATION, VARIOUS RESPONSABILITIES, A FEW REFERENCES

French level

- In charge of the national working group for the new French seismic zonation map (2002-2004)
- Member of the working group for establishing guidelines for a correct accounting of seismic hazard for safe dam and dyke design (2009-2011), then for environmentally-critical facilities (2028-2020)
- Scenario studies for the city of Nice (2001-2004)
- Vice-President of AFPS (French Association of Earthquake Engineering) (2004-2006, 2008-2012)
- Chairman of the Scientific and Technical Committee of AFPS (2000-2004)
- Chairman of the Evaluation Committee on Microzonation studies (2007-2012)
- Chairman of the Committee on Natural Risks and Climate Change for Overseas Territories, French Ministry of Research, 2009-2010
- Member of various evaluation committees on research programmes (INSU/PNRR), working groups (Dams and Earthquakes) and boards (RAP, French Accelerometric network)

International level

- Expert on seismic hazard for various projects (seismic design of the Vasco de Gama bridge, Lisbon;; update of the seismic hazard assessment for the Mochovce and Jaslovské Bohunice NPPs (PSHA22 - SSHAC Level 2, Chairman of PPRP);
- Participation to the KEM (Knowledge program on the Effects of Mining) expert subpanel acting as a review and advisory committee on public Seismic Hazard and Risk Analysis model for the Groningen gas field. 2021-2024.
- Seismic hazard studies for various civil engineering facilities: Enguri dam, Georgia, 2023; 3 Myanmar dams, 2019)
- Member of the Evaluation Committee for GNDT (Gruppo Nazionale di Difesa del Terremoti, Italian Civil protection), 2001-2004
- Site effect expert for the PEGASOS projects (probabilistic seismic hazard reevaluation for Swiss nuclear power plants, 2001-2004 and 2008-2011)
- Member of the "Technical Advisory Board" of Turkish projects "Microzonation for Earthquake Risk Mitigation" (2002-2004) and "Compilation of National Strong Ground Motion Database in Accordance with International Standards" (2006-2010)
- Coordinator of the European project "SESAME" (2001-2004), NERIES - JRA4 (2006-20010), and NERA-JRA1 (2010-2014) research projects.
- Scientific Committee of the "SIGMA" R&D project [EDF-CEA-AREVA-ENEL, 2011-2015]
- Past Member of the Editorial Board of various Journals: "*Soil Dynamics and Earthquake Engineering*", "*Journal of Seismology and Earthquake Engineering*", "*Bulletin of Earthquake Engineering*"
- Reviewer for many peer-reviewed journals (BSSA, GJI, SDEE, JSES, BEE, JGR, NHESS, JOSE, PAGEOPH, ...) and National Funding Agencies (CH, CL, CZ, FR, IS, IT, NL, NZ, US)

PUBLICATIONS

- International, peer reviewed journals: referenced in ISI WoS: 174; Other: 30 ; Citation index: >10500 - H-index: 59 (*Google Scholar*: >22400 /76)
- Book chapters: 16
- Proceedings: International Conferences: 193 / National Conferences (France): 76
- Additional oral presentations: International Conferences 156, National Conferences (France) 45

AWARDS / INVITED CONFERENCES

- AFPS award 1991 (co-lauréat with A. Pecker)
- ISET (Indian Society of Earthquake Technology) Trifunac award 2014
- RAP (French accelerometric network) award 2018 (shared with A. Souriau)
- Invited professorship, Disaster Prevention Research Institute, Kyoto University, February-May 2023
- Conference Keynote lectures: European Seismological Commission 1998 (Tel Aviv), 2002 (Genoa), 2010 (Montpellier); ESG1998 (Yokohama), 2011 (Santa Barbara), 2016 (Taipei) and 2021 (Kyoto, virtual); Italian Association of Earthquake Engineering, 2001 (Potenza-Matera); 250th Anniversary of the Lisbon earthquake (Lisbon, 2005), Portuguese National Geotechnical Conference, 2006 (Lisbon); Spanish Conference on Earthquake Engineering, 2007 (Girona); Indian Society of Earthquake Technology, 2014 (Roorkee).
- Other invited conferences (international conferences or workshops, state-of-the-art): 48 (Alger, Aïn-Temouchent, Beirut, Bratislava, Brussels, Bucharest, Caracas, Christchurch, Cuernavaca, Erice, Istanbul, Hatay, Kyoto, Lisbon, Nice, Orléans, Oxford, Pasadena, San Francisco, Sapporo, Seeheim, Smolenice, Taipei, Tehran, Tokyo, Trieste, Tunis, Vienna)
- Invited seminars in various institutions: France 15 - Foreign institutions 39

Bard 博士 防災研究所への貢献の足跡

1988年8月

第9回世界地震工学会議（9WCEE）の日本（東京・京都）開催終了後に防災研究所に滞在

1995年8月

科学研究費助成事業（国際学術研究）（研究代表者：入倉孝次郎）「直下型地震による強震動予測に関する日仏共同研究 Japan-France Joint Project on Strong Motion Prediction」の一環で共同研究者として滞在

2023年2月10日～2023年5月10日

社会防災研究部門国際防災共同研究分野に外国人客員教授として滞在

1982-2024: four decades of accumulating (scientific) debt to “Japan-made” engineering seismology

Pierre-Yves Bard

ISTerre (Institute of Earth Sciences), University Grenoble-Alpes, Grenoble, France

As a sincere thanks for this honoring DPRI award, I will start my talk with listing several features of my professional career that benefitted a lot from inspirational exchanges with Japanese seismologists and engineers. As it might look as an indigest, “à la Prévert” catalog of apparently unrelated activities, I will detail one particular scientific topic that has been one of my constant concerns since the Guerrero-Michoacan 1985 event and its effects in Mexico City, i.e., the interaction between the building stock and the seismic ground motion in densely urbanized areas: this debated issue might find an in-situ, full-scale and real-world instrumental answer with accumulated strong motion gathered since almost three decades by the K-NET and KiK-net networks.

The list of my “Japan-inspired” activities is indeed quite long and broad, as it combines specific research topics, the approach to tackle them, and the way to use and communicate research results. I will shortly mention some of them:

- The involvement in the mid-eighties in the genesis of the IASPEI/EAGE working group on ESG, with smart Japanese and Californian leaders: the way they found a road for understanding the reasons of their different viewpoints on ESG, and for reaching a common understanding (from seismologists to engineers, and on each side of the Pacific Ocean...) left me a career-long example of how to (try to) bridge the multi-fold misunderstanding gaps between the different communities involved in engineering seismology
- Making me aware of the usefulness of long-term test sites coupled with benchmarking exercises: The Ashigara Valley and Turkey Flat blind predictions proved very instructive for me in strongly shaking my (by that time strong) numerical simulation bias, learning me the value of well-controlled data. This was actually the initial seed for the future establishment of several test sites in Europe and the organization of numerous benchmarking exercises.
- The use of microtremors (and microseisms) following the exponential world-wide spread of the H/V technique after the 1989 Nakamura's RTRI paper: this was really a major turn in my scientific career. Trying to understand the physical meaning of this H/V ratio, I discovered the richness of the Japanese literature, the variety of approaches and interpretations, and it was actually for me the initial impetus to introduce the ambient vibration approaches first in the European seismological community, and then in the engineering community. It took long time to convince both communities, but after three decades it is almost done, thanks to many exchanges with Japan, several European projects, dedicated experiments, many PhD students and international benchmarks...
- The new standards set up by K-net and KiK-net networks in producing large sets of high-quality strong motion data and making them freely available worldwide through internet: the post-Kobe, mid-nineties coincided with the time we were starting the French strong motion network, and struggling with the “keep your data for you” policy, and the “kyoshin” web site was an excellent example to show and follow! Not to talk about the achievement of systematic site investigations and the availability of velocity and geological profiles, which were a fantastic opportunity for many previously impossible investigations, including with emerging AI tools. I will list several topics where actually this dataset was essential in my research activities over the last two decades
- Last but not least, I also enjoyed and benefitted from the beginning of my career, the human qualities of Japanese seismologists. Their humility, their respectful attentiveness, their quietness (and sometimes their silence) were indeed very useful for a young French professional, quite likely to give in to typically French (or Western style) arrogant, loud-speaking behavior.

The second part will focus on the site-city interaction issue, first with a quick overview of past, partial results, followed by an analysis of data from one of the most densely urbanized areas in the World, the Tokyo-Kanto area. The striking site response observations obtained in Mexico City during the 1985 Guerrero-Michoacan event triggered a series of investigations on multiple structure-soil-structure interaction, which later evolved with the concept of metamaterials. Up to very recently, such investigations relied largely on numerical simulations in 2D and 3D media, coupling soft surface

soil layers and simplified building models, including also some theoretical developments using various mechanical concepts. They also relied on a number of laboratory experiments on reduced-scale mock-ups with diverse vibratory sources (shaking table, acoustic devices). The latest studies coupled full-scale experiments on mechanical analogs such as forests or wind turbine farms involving sets of resonators with similar frequencies, and numerical simulation to investigate their impact on the propagation of surface (Rayleigh) waves. Almost all such studies converge in predicting lower ground motion amplitude for sites located within the "urbanized" area, but none of them can be considered a "ground-truth" proof for a real earthquake in a real city. Thus, I took advantage of my 3-month stay in DPRI in Spring 2023, to investigate the possibility of temporal site response changes in areas of rapid urban changes, through an analysis of the event-specific site terms provided by the Generalized Inversion Techniques of Nakano et al. (2015) at all KiK-net, K-NET or JMA (Shin-dokei) located in the Kanto area. In short, it is found that the sites located in or near the priority redevelopment areas of the "urban renaissance" program in Tokyo, where many new high-rise buildings have been erected since the turn of the century, exhibit a significant reduction of the low-frequency amplification (up to a factor of 3 reduction at some sites). Considering the correspondence between high-rise building frequencies (below 1 Hz) and site frequencies (fundamental mode below 0.2 Hz in relation with very thick - around 3 kilometres - sedimentary deposits, and largest amplification between 0.5 and 1 Hz in relation to softer soils at shallow depth), such a decrease is consistent with the outcomes of all kinds of previous investigations carried over three decades about effects of multiple interaction between buildings and underground soil structure. Such a consistency, although intriguing, cannot be considered yet a definite proof that the observed reduction is actually due to "site-city interaction" effects: I look forward a further cooperation with Japanese colleagues to performing some additional investigations (that I will propose) to confirm (or eliminate) the SCI interpretation.

PUBLICATION LIST

Pierre-Yves BARD, October 2024

PEER REVIEW JOURNALS

1. Bard, P.-Y., & M. Bouchon, 1980. The seismic response of sediment-filled valleys. Part 1: The case of incident SH waves. *Bull. seism. Soc. Am.*, **70**, 1263-1286.
2. Bard, P.-Y., & M. Bouchon, 1980. The seismic response of sediment-filled valleys. Part 2: The case of incident P and SV waves. *Bull. seism. Soc. Am.*, **70**, 1921-1941.
3. Bard, P.-Y., 1982. Diffracted waves and displacement field over two-dimensional elevated topographies. *Geophys. J.R. astr. Soc.*, **71**, 731-760.
4. Bard, P.-Y., J.-L. Durville, & J.-P. Mèneroud, 1983. Amplification des ondes sismiques: influence des conditions géologiques locales. *Bull. liaison Laboratoires des Ponts-et-Chaussées*, **123**, 85-90.
5. Bard, P.-Y., J.-L. Durville, & J.-P. Mèneroud, 1984. Influence de la topographie sur la modification des ondes sismiques. *Méditerranée*, **1.2**, 113-121.
6. Bard, P.-Y., & M. Bouchon, 1985. The two-dimensional resonance of sediment-filled valleys. *Bull. seism. Soc. Am.*, **75**, 519-541.
7. Bard, P.-Y., & B.E. Tucker, 1985. Underground and ridge site effects : A comparison of observation and theory. *Bull. seism. Soc. Am.*, **75**, 905-922.
8. Bard, P.-Y., J.-L. Durville, & P. Mouroux, 1985. Les risques naturels: cas des séismes. *Bull. Soc. Géol. Fr.*, **7**, 1129-1143.
9. Bard, P.-Y., & J.-C. Gariel, 1986. The seismic response of two-dimensional sedimentary deposits with large vertical velocity gradients. *Bull. seism. Soc. Am.*, **76**, 343-366.
10. Géli, L., P.-Y. Bard, and D.P. Schmitt, 1987. Seismic wave propagation in a very permeable water saturated surface layer, *J. geophys. Res.*, **92**, 7931-7944.
11. Boutin, C., P.-Y. Bard and G. Bonnet, 1987. Green functions and associated sources in infinite and stratified poroelastic media, *Geophys. J. R. astr. Soc.*, **90**, 521-550.
12. Moczo, P., P.-Y. Bard and I. Psencik, 1987. Seismic response of two-dimensional absorbing structures by ray method, *J. Geophys.*, **62**, 38-49.
13. Bard, P.-Y., J.P. Mèneroud, J.L. Durville and P. Mouroux, 1987. Microzonage sismique. Application aux plans d'exposition aux risques (PER), *Bull. Liaison Laboratoires des Ponts et Chaussées, Numéro Spécial "Risques Naturels"*, **150-151**, 130-139.
14. Bard, P.-Y., and J.P. Mèneroud, 1987. Modification du signal sismique par la topographie. Cas de la vallée de la Roya (Alpes-Maritimes), *Bull. Liaison Laboratoires des Ponts et Chaussées, Numéro spécial "Risques Naturels"*, **150-151**, 140-151.
15. Géli, L., P.-Y. Bard, and B. Jullien, The effect of topography on earthquake ground motion: a review and new results, *Bull. seism. Soc. Am.*, **7**, 42-63, 1988.
16. Bard, P.-Y., M. Campillo, F.J. Chàvez-Garcia and F.J. Sanchez-Sesma, Strong ground motion in Mexico City during the great Michoacan earthquake. Part B: A theoretical investigation of large- and small-scale amplification effects, *Earthquake Spectra*, **4:3**, 609-633, 1988.
17. Campillo, M., P.-Y. Bard, F. Nicollin and F.J. Sanchez-Sesma, Strong motion in Mexico City during the great Michoacan Earthquake, Part A: The incident wavefield and its interaction with the deep basin, *Earthquake Spectra*, **4:3**, 591-608, 1988.
18. Chàvez-Garcia, F.J., D. Hatzfeld, P.-Y. Bard and G. Pedotti, An experimental study of site effects near Thessaloniki (Northern Greece), *Bull. seism. Soc. Am.*, **80**, 784-806, 1990.
19. Bard, P.-Y., Comportement sismique d'un passage supérieur d'autoroute: analyse de données expérimentales, *Bulletin de liaison des Laboratoires des Ponts-et-Chaussées*, **167**, Mai-Juin 90, pp. 61-76.
20. Gariel J.C., P.-Y. Bard, and K. Pitilakis, A theoretical investigation of source, path and site effects during the 1986 Kalamata Earthquake (Greece), *Geophys. J. Int.*, **104**, 165-177, 1991.
21. Hammoutène, M., B. Tiliouine and P.-Y. Bard, 1991. A two-dimensional nonstationary model for characterization and simulation of seismic accelerations, *European Earthquake Engineering*, **V-1**, 3- 9.
22. Moczo, P. and P.-Y. Bard, 1993. Wave diffraction, amplification and differential motion near strong lateral discontinuities, *Bull. seism. Soc. Am.*, **83**, 85-106.
23. Chàvez-Garcia, F.J., and P.-Y. Bard, 1993. Gravity waves in Mexico City ? I. Gravity perturbed waves in an elastic solid, *Bull. seism. Soc. Am.*, **83**, 1637-1655.
24. Chàvez-Garcia, F.J., and P.-Y. Bard, 1993. Gravity waves in Mexico City ? II. Coupling between an elastic solid and a fluid layer, *Bull. seism. Soc. Am.*, **83**, 1656-1675.
25. Bard, P.-Y., and F.J. Chàvez-Garcia, 1993. On the decoupling of surficial sediments from surrounding geology at Mexico City, *Bull. seism. Soc. Am.*, **83**, 1979-1991.

26. Caillot, V., and P.-Y. Bard, 1993. Magnitude, distance and site dependent spectra from Italian accelerometric data, *European Earthquake Engineering*, **1**, 93, 37-48.
27. Lachet, C., and P.-Y. Bard, 1994. Numerical and theoretical investigations on the possibilities and limitations of the "Nakamura's" technique, *Journal of Physics of the Earth*, **42-4**, 377-397, 1994.
28. Chàvez-Garcia, F.J., and P.-Y. Bard, 1994. Site effects in Mexico City eight years after the September 1985 Michoacan earthquakes, *Soil Dyn. and Earthq. Engng*, 229 - 247.
29. Pedersen, H., B. Le Brun, D. Hatzfeld, M. Campillo and P.-Y. Bard, 1994. Ground motion amplitude across ridges, *Bull. seism. Soc. Am.*, **84**, 1786-1800.
30. Chàvez-Garcia, F.J., F.J. Sanchez-Sesma, M. Campillo and P.-Y. Bard, 1994. El terremoto de Michoacan de Septiembre de 1985: efectos de fuente trayecto y sitio, *Física de la Tierra, Editorial Computense*, Madrid, **6**, pp. 157-200.
31. Theodoulidis, N., and P.-Y. Bard, 1995. (H/V) spectral ratio and geological conditions: an analysis of strong motion data from Greece and TaiWan (SMART-1), *Soil Dyn. and Earthq. Engng*, **14**, 177-197.
32. Chàvez-Garcia, F.J., and P.-Y. Bard, 1995. Reply to "Comment on two articles on gravity waves by Chàvez-Garcia and Bard (1993a,b)", *Bull. seism. Soc. Am.*, **85**, 1272-1274.
33. Teves-Costa, P., L. Matias and P.-Y. Bard, 1996. Seismic behavior estimation of thin alluvium layers using microtremor recordings, *Soil Dyn. and Earthq. Engng*, **15**, 201-209.
34. Theodoulidis, N., P.-Y. Bard, R.J Archuleta and M. Bouchon, 1996. Horizontal to vertical spectral ratio and geological conditions: the case of Garner Valley downhole array in Southern California, *Bull. seism. Soc. Am.*, **86**, 306-319.
35. Wirgin, A., and P.-Y. Bard, 1996. Effects of buildings on the duration and amplitude of ground motion in Mexico City, *Bull. seism. Soc. Am.*, **86**, 914-920.
36. Kahan, M., R.-J. Gibert and P.-Y. Bard, 1996. Influence of seismic waves spatial variability on bridges: A sensitivity analysis, *Earthquake Engineering and Structural Dynamics*, **25-8**, 795-814.
37. Lachet, C., D. Hatzfeld, P.-Y. Bard, N. Theodulidis, C. Papaioannou and A. Savvaidis, 1996. Site effects and Microzonation in the city of Thessaloniki (Greece): comparison of different aproaches, *Bull. seism. Soc. Am.*, **86**, 1692-1703.
38. Duval, A.-M., J.-P. Mèneroud, S. Vidal et P.-Y. Bard, 1996. Une nouvelle méthode d'évaluation de la réponse des sols aux séismes par enregistrement du bruit de fond, *Bulletin de liaison des Laboratoires des Ponts-et-Chaussées*, **203**, Mai-Juin 96, pp. 75-90.
39. Fourmaintraux, D., J.-R. Grasso, P.-Y. Bard, et M. Koller, 1997. Utilisation de l'enregistrement sismique continu pour l'estimation du risque de sismicité associée aux réservoirs d'hydrocarbures et déclenchée par leur exploitation, *Bull. Centre Rech. Elf Explor. Prod.*, **21-2**, 323-336.
40. Riepl, J., C. Sousa-Oliveira and P.-Y. Bard, 1997. Spatial coherence of seismic wave fields across an alluvial valley (weak motion), *Journal of Seismology*, **1**:253-268.
41. Jongmans, D., K. Pitilakis, D. Demanet, D. Raptakis, J. Riepl, C. Horrent, G. Tsokas, K. Lontzetidis and P.-Y. Bard, 1998. EURO-SEISTEST: Determination of the geological structure of the Volvi basin and validation of the basin response, *Bull. seism. Soc. Am.*, **88-2**, 473-487.
42. Riepl, J., P.-Y. Bard, D. Hatzfeld, C. Papaioannou and S. Nechtschein, 1998. Detailed evaluation of site response estimation methods across and along the sedimentary valley of Volvi (EURO-SEISTEST), *Bull. seism. Soc. Am.*, **88-2**, 488-502.
43. Kamae, K., P.-Y. Bard and K. Irikura, 1998. Prediction of strong ground motion at EUROSEISTEST using the empirical Green's function method, *Journal of Seismology*, **2-3**, 193-207.
44. Bard, P.-Y., M. Zaré, and M. Ghafory-Ashtiany, 1998. The Iranian accelerometric data bank: a revision and data correction, *Journal of Seismology and Earthquake Engineering*, IIEES Tehran, **1-1**, 1-22.
45. Zerva, A., A. Petropulu and P.-Y. Bard, 1999. Blind deconvolution methodology for site response evaluation exclusively from ground surface seismic recordings, *Soil Dyn. and Earthq. Engng*, **18**, 47-57.
46. Zaré, M., P.-Y. Bard and M. Ghafory-Ashtiany, 1999. Site categorization for the Iranian strong motion network, *Soil Dyn. and Earthq. Engng*, **18**, 101-123.
47. Lebrun, B., D. Hatzfeld, P.-Y. Bard and M. Bouchon, 1999. Experimental study of ground motion on a large scale topography, *Journal of Seismology*, **3-1**, 1-15..
48. Pavic, R., Koller, M., , P.-Y. Bard, and C. Lacave-Lachet, 2000. Ground motion prediction with the empirical Green's function technique: an assessment of uncertainties and confidence level, *Journal of Seismology*, **4-1**, 59-77.
49. Guéguen, P., J.-F. Semblat et P.-Y. Bard, 2000. Interaction sismique sol-structure-sol en milieu urbain: modélisation par éléments finis, *Revue Française de génie Civil*, **4-1**, 9-33. <https://doi.org/10.1080/12795119.2000.9692272>
50. Lacave-Lachet, C., P.-Y. Bard, J.-C. Gariel and K. Irikura, 2000. Straightforward methods to detect non-linear soil response from the recordings of the Kóbé earthquake, *Journal of Seismology*, **4-2**, 161-173.
51. Riepl, J., J. Zahradnik, V. Plicka and P.-Y. Bard, 2000. About the efficiency of numerical 1D and 2D modelling of site effects in basin structures, *Pageoph*, **157**, 319-342.
52. Tiliouine, B., M. Hammoutène, and P.-Y. Bard, 2000. On the phase content modelling of earthquake strong motions, *European Earthquake Engineering*, **XIV-2**, 27-34.
53. Bard, P.-Y. et C. Martin, 2000. Zonage et microzonage sismiques : principes et difficultés, *Annales des Ponts-et-Chaussées*, **93**, pp. 59-67.
54. Guéguen, P., P.-Y. Bard, and C. Oliveira, 2000. Distant motion from an isolated RC-building model: experimental and numerical approaches, *Bull. seism. Soc. Am.*, **90-6**, 1464-1479.
55. Dimitriu, P., N. Theodulidis and P.-Y. Bard, 2000. Evidence of non-linear site response in HVSR from SMART1 data, *Soil Dyn. and Earthq. Engng*, **20**, 155-165.
56. Lussou P., P.Y Bard, H. Modaressi, J.C. Gariel, 2000. Quantification of soil nonlinearity based on simulation, *Soil Dynamics and Earthquake Engineering*, **20** (5-8), 509-516.

57. Lebrun, B., D. Hatzfeld and P.-Y. Bard, 2001. A site effect study in urban area: experimental results in Grenoble (France), *Pageoph*, **158**, 2543-2557.
58. Lussou, P., Fukushima, Y., P.-Y. Bard and F. Cotton, 2001. Seismic design regulation codes : contribution of KNET data to site effect evaluation, *Journal of Earthquake Engineering*, **5-1**, p. 13-33.
59. Mora, M.M., P. Lesage, J.Dorel, P.-Y. Bard, J.-P. Métaxian, G.E. Alvarado, and C. Leandro, 2001. Study of seismic site effects using H/V spectral ratios at Arenal Volcano, Costa Rica, *Geophys. Res. Letters*, **28-15**, 2291-2294.
60. Bettig, B., P.-Y. Bard, F. Scherbaum, J. Riepl, F. Cotton, C. Cornou and D. Hatzfeld, 2001. Analysis of dense array noise measurements using the modified SPatial Auto-Correlation method (SPAC) . Application to the Grenoble area. *Boletín de Geofísica Teórica e Aplicada*, **42-3/4**, p. 281-304.
61. Duval, A.-M., P.-Y. Bard, B. Lebrun, C. Lacave-Lachet, J.Riepl and D.Hatzfeld, 2001. H/V technique for site response analysis: synthesis of data from various surveys, *Boletín de Geofísica Teórica e Aplicada*, **42-3/4**, p. 267-280.
62. Guéguen, P., P.-Y. Bard, and F.J. Chavez-Garcia, 2002. Site-city interaction in Mexico City like environments: an analytical study, *Bull. seism. Soc. Am.*, **92-2**, 794-811.
63. Guéguen, P., P.-Y. Bard, J.-F. Semblat, 2002. Interaction Site-Ville : un nouvel aspect de l'aléa sismique, *Bulletin de liaison des laboratoires des Ponts-et-Chaussées*, **236**, p. 17-36.
64. Zaré, M., and P.-Y. Bard, 2002. Strong motion data set of Turkey: data processing and site classification, *Soil Dyn. and Earthq. Engng*, **22-8**, 703-718.
65. Havenith, H.B, D. Jongmans, E. Faccioli, K. Abdrakhmatov and P.-Y. Bard, 2002.Site effect analysis around the seismically induced Ananevo rockslide, Kyrgyzstan, *Bull. seism. Soc. Am.*, **92-8**, 3190-3209.
66. Beauval, C., P.-Y. Bard, P. Moczo and J. Kristek, 2003. Quantification of frequency-dependent lengthening of seismic ground motion duration due to local geology: applications to the Volvi area (Greece), *Bull. seism. Soc. Am.*, **93-1**, pp.371-385.
67. Cornou, C., and P.-Y. Bard, 2003. Site-to-bedrock over 1D transfer function ratio: An indicator of the proportion of edge-generated surface waves?, *Geophysical Research Letters*, Vol. 30, n° 9, 1453, doi:10.1029/2002GL016593
68. Parolai, S. and P.-Y. Bard, 2003. Evaluation of amplification and frequency-dependent lengthening of duration of seismic ground motion due to local effects by means Joint Analysis of Sonogram and Standard Spectral Ratio, *Journal of Seismology*, **7**:479-492, 2003.
69. Cornou, C., P.-Y. Bard, M. Dietrich, 2003. Contribution of dense array analysis to basin-edge-induced waves identification and quantification. Methodology (I), *Bull. seism. Soc. Am.*, **93-6**, pp. 2604-2623.
70. Cornou, C., P.-Y. Bard, M. Dietrich, 2003. Contribution of dense array analysis to basin-edge-induced waves identification and quantification. Application to Grenoble basin, French Alps (II), *Bull. seism. Soc. Am.*, **93-6**, pp. 2624-2648.
71. Farsi M., Bard P.-Y. (2003) Estimation des périodes propres de bâtiments et vulnérabilité du bâti existant dans l'agglomération de Grenoble, *Revue Française de Génie Civil*, vol. 8, n°2/3, pp.149-179.
72. Bommer, J., N.A. Abrahamson, F.O. Strasser, A. Pecker, P.-Y. Bard, H. Bungum, F. Cotton, D. Fäh, F. Sabetta, F. Scherbaum, and J. Studer, 2004. The challenge of defining upper bounds on earthquake ground motions, *Seismological Research Letters*, **75-1**, pp. 82-95.
73. LeBrun, B., A.-M. Duval, P.-Y. Bard, O. Monge, M. Bour, S.Vidal, and H. Fabriol, 2004. Seismic microzonation: a comparison between geotechnical and seismological approaches in Pointe-à-Pitre (French West Indies), *Bulletin of Earthquake Engineering*, **2-1**, pp. 27-50.
74. Cornou, C., P. Guéguen, P.-Y. Bard, and E. Haghshenas, 2004. Ambient noise energy bursts observation and modeling: Trapping of harmonic structure-soil induced waves in a topmost sedimentary layer, *Journal of Seismology*, **8-4**, 507-524, DOI:10.1007/s10950-004-1980-7.
75. Pousse, G., C. Berge-Thierry, F. Bonilla and P.-Y. Bard, 2005. Eurocode 8 design response spectra evaluation using the K-Net japanese database, *Journal of Earthquake Engineering*, Vol. 9, No. 4 (2005) 547-574, doi:10.1142/S1363246905002067
76. Sèbe, O., P.-Y. Bard and J. Guilbert, 2005. Single station estimation of seismic source time function from coda waves: the Kursk's disaster, *Geophys. Res. Lett.*, Vol. 32, No. 14, L14308, doi:10.1029/2005GL022799, 2005
77. Guéguen, Ph. and P.-Y. Bard, 2005. Soil-structure and soil-structure-soil interaction: experimental evidence at the Volvi test site, *Journal of Earthquake Engineering*, Vol. 9, No. 5, 657-693, doi:10.1080/13632460509350561.
78. Semblat, J.-F., M. Kham, E. Parara, P.-Y. Bard, K. Pitilakis, K. Makra and D. Raptakis, 2005. Seismic wave amplification: basin geometry vs soil layering, *Soil Dynamics and Earthquake Engineering*, **25** (2005) 529-538.
79. Bard, P. Y., Duval, A. M., Foin, P., Guéguen, P., Bertrand, E., Vassiliades, J. F., ... & Dunand, F. (2005). Un outil pour la prise de conscience du risque sismique: les études de scénario. L'exemple de Nice. In *Annales des Mines, Responsabilité et environnement* (p. 70-83).
80. Kham, M., J.-F. Semblat, P.-Y. Bard and P. Dangla, 2006. Seismic Site-City Interaction: Main Governing Phenomena through Simplified Numerical Models, *Bulletin of the Seismological Society of America*, Vol. **96-5**, p. 1934-1951, doi: 10.1785/0120050143.
81. Bonnefoy-Claudet, S., P.-Y. Bard, F. Cotton, 2006. The nature of noise wavefield and its applications for site effects studies. A literature review. *Earth Science Review*, **79(3-4)**, 205-227.
82. Bonnefoy-Claudet, S., C. Cornou, P.-Y. Bard, F. Cotton, P. Moczo, J. Kristek and D. Fäh, 2006. H/V ratio: a tool for site effects evaluation. Results from 1D noise simulations. *Geophys. J. Int.*, **167**, 827-837.
83. Farsi, M. N., P.-Y. Bard and D. Benouar, 2006. Dynamic characteristics of common buildings under strong shaking: a statistical study through system identification from CSMIP data. *European Earthquake Engineering*, Volume **XX-3**, 22-36
84. Haghshenas, E., and P.-Y. Bard, 2008. Strong motion simulation in Tehran using Empirical Green function method, *Journal of Seismology and Earthquake Engineering*, **9-3** (Fall 2007), pp. 137-152.
85. Bard, P.-Y., 2008. The H/V technique : capabilities and limitations based on the results of the SESAME project - Foreword, *Bulletin of Earthquake Engineering*, **6-1**, pp. 1-2, Feb. 2008.

86. Guillier, B., K. Atakan, J.-L. Chatelain, J. Havskov, M. Ohrnberger, F. Cara, A.-M. Duval, S. Zacharopoulos, P. Teves-Costa, C. Accera, G. Alguacil, R. Azzara, P.-Y. Bard, F. Blarel, A. Borges, M. Grandison, S. Rao, N. Theodoulidis, E. Tvedt, T. Utheim, S. Vidal, D. Vollmer, 2008. Influence of instruments on the H/V spectral ratios of ambient vibrations, *Bulletin of Earthquake Engineering*, 6-1, pp. 3-31, Feb. 2008.
87. Chatelain, J.-L., B. Guillier, F. Cara, A.-M. Duval, K. Atakan, P.-Y. Bard, R. Azzara, S. Bonnefoy-Claudet, A. Borges, M. Bottger Sorensen, G. Cultrera, G. Di Giulio, F. Dunand, D. Fäh, Ph. Guéguen, J. Ripperger, P. Teves Costa, J.-F. Vassiliades, S. Vidal, J. Wassner, 2008. Evaluation of the influence of experimental conditions on H/V results from ambient noise recordings, *Bulletin of Earthquake Engineering*, 6-1, pp. 33-74, Feb. 2008.
88. Haghshenas, E., P.-Y. Bard, N. Theodoulidis and SESAME WP04 Team, 2008. Empirical evaluation of microtremor H/V spectral ratio, *Bulletin of Earthquake Engineering*, 6-1, pp. 75-108, Feb. 2008.
89. Bonnefoy-Claudet, S., A. Köhler, C. Cornou, M. Wathelet, and P.-Y. Bard, 2008. Effects of love waves on microtremor h/v ratio, *Bull. seism. Soc. Am.*, Vol. 98, No. 1, pp. 288-300, February 2008, doi: 10.1785/0120070063.
90. Causse, M., F. Cotton, C. Cornou and P.-Y. Bard, 2008. Calibrating median and uncertainty estimates for a practical use of Empirical Green's function technique, *Bull. Seism. Soc. Am.*, Vol. 98, No. 1, pp. 344-353, February 2008, doi: 10.1785/0120070075.
91. Beauval, C., P.-Y. Bard, S. Hainzl and Ph. Guéguen, 2008. Limited constraints on probabilistic seismic hazard estimates, *Bull. seism. Soc. Am.*, Vol. 98, No. 2, pp. 509-520, April 2008, doi: 10.1785/0120070006.
92. Lacave, C., P.-Y. Bard, M. Kham, and M.G. Koller, 2008. 2D equivalent linear site effect simulation : example applications to two deep valleys. *Bulletin of Earthquake Engineering*, 6-2, pp. 197-211, May 2008.
93. Michel, C., P. Guéguen and P.-Y. Bard, 2008. Dynamic parameters of structures extracted from ambient vibration measurements: An aid for the seismic vulnerability assessment of existing buildings in moderate seismic hazard regions, *Soil Dynamics and Earthquake Engineering*, 28-8 (Aug. 2008), 593-604.
94. Semblat, J.-F., M. Kham and P.-Y. Bard, 2008. Seismic wave propagation in alluvial basins and influence of site-city interaction, *Bull seism. Soc. Am.*, Vol. 98, No. 6, pp. 2665-2678, December 2008, doi: 10.1785/0120080093
95. Hobiger, M., P.-Y. Bard, C. Cornou and N. le Bihan (2009). Single station determination of Rayleigh wave ellipticity by using the random decrement technique (RayDec), *Geophys. Res. Lett.*, 36, L14303, doi:10.1029/2009GL038863.
96. Causse, M., E. Chaljub, F. Cotton, C. Cornou and P.-Y. Bard, 2009. New approach for coupling k-2 and empirical Green's functions: application to the blind prediction of broadband ground motion in the Grenoble basin, *Geophys. J. Int.*, doi:10.1111/j.1365-246X.2009.04354.x
97. Cadet, H., P.-Y. Bard and A. Rodriguez-Marek, 2010. Defining a standard rock : propositions based on the KIKNET data. *Bull. Seism. Soc. Am.*, Vol. 100, No. 1, pp. 172-195, February 2010, doi: 10.1785/0120090078
98. Chaljub, E., P. Moczo, S. Tsuno, P.-Y. Bard, J. Kristek, M. Käser, M. Stupazzini and M. Kristekova, 2010. Quantitative Comparison of Four Numerical Predictions of 3D Ground Motion in the Grenoble Valley, France, *Bull. Seism. Soc. Am.*, Vol. 100, No. 4, pp. 1427-1455, August 2010, doi: 10.1785/0120090052.
99. Shabani, E., P.-Y. Bard, N. Mirzaei, M. Eskandari-Ghadi, C. Cornou and E. Haghshenas, 2010. An extended MSPAC (Modified Averaged Spatial Autocorrelation Coefficient) method for Circular Arrays, *Geophys. J. Int.* (2010) 182, 1431-1437 doi: 10.1111/j.1365-246X.2010.04687.x
100. Renalier, F., D. Jongmans, M. Campillo, and P.-Y. Bard (2010), Shear wave velocity imaging of the Avignonet landslide (France) using ambient noise cross correlation, *J. Geophys. Res.*, 115, F03032, doi:10.1029/2009JF001538.
101. Michel, C., P. Guéguen, P. Lestuzzi, P.-Y. Bard. 2010. Comparison between seismic vulnerability models and experimental dynamic properties of existing buildings in France, *Bulletin of Earthquake Engineering*, Vol. 8-6, 1295-1307,, doi 0.1007/s10518-010-9185-7
102. Beauval, C. P.-Y. Bard & J. Douglas, 2010. Comment on Comment on "Test of seismic hazard map from 500 years of recorded intensity data in Japan" by Masatoshi Miyazawa and Jim Mori, *Bull. Seism. Soc. Am.*, Vol. 100, No. 6, pp. 3329-3331, December 2010, doi: 10.1785/0120100065.
103. Bard, P.-Y., 2011. Seismic loading. Engineering characterization of seismic ground motion and key controlling factors, *European Journal of Environmental and Civil Engineering* (Hermès Editions), VOL 15/Special Issue HAZARD PREVENTION AND PROTECTION SOME ISSUES ON SEISMIC AND GRAVITATIONAL RISKS - 2011 - pp.141-184 - doi:10.3166/ejece.15si.141-184.
104. Hobiger, M., C. Cornou, P.-Y. Bard and N. Le Bihan, 2011. MUSIQUE: a quaternion-based array processing technique for surface wave polarization analysis, 2011 IEEE statistical signal processing workshop (SSP), Nice (France), Jun 28-30, 2011, p. 5-8.
105. Cadet, H., P.-Y. Bard and A. Rodriguez-Marek, 2012. Site effect assessment using KiK-net data - Part 1 - A simple correction procedure for surface/downhole spectral ratios, *Bull. Earthq. Engineering*, 10:421-448, DOI: 10.1007/s10518-011-9283-1
106. Cadet, H., P.-Y. Bard, A.-M. Duval and E. Bertrand, 2012. Site effect assessment using KiK-net data - Part 2 - Site Amplification Prediction Equation (SAPE) based on f0 and VsZ, *Bull. Earthq. Engineering*, 10:451-489, DOI: 10.1007/s10518-011-9298-7
107. Hobiger, M., N. Le Bihan, C. Cornou and P.-Y. Bard, 2012. Multicomponent signal processing for Rayleigh wave ellipticity estimation: application to seismic hazard assessment. *IEEE*. In press *IEEE SIGNAL PROCESSING MAGAZINE* Volume: 29 Issue: 3 Pages: 29-39 DOI: 10.1109/MSP.2012.2184969
108. Di Giulio, G., A. Savvaidis, M. Ohrnberger, M. Wathelet, C. Cornou, B. Knapmeyer-Endrun, F. Renalier, N. Theodoulidis and P.-Y. Bard, 2012. Exploring the model space and ranking a best class of models in surface-wave dispersion inversion: application at European strong motion sites", *Geophysics* 77, B147 (2012), <http://dx.doi.org/10.1190/geo2011-0116.1>
109. Derras, B., P.Y. Bard, F. Cotton and A. Bakkouche, 2012. Adapting the neural network approach to PGA prediction: an example based on the KiK-net data, *Bull.seism.Soc. Am Bulletin of the Seismological Society of America*, Vol. 102, No. 4, pp. 1446-1461, August 2012, doi: 10.1785/0120110088.
110. Hobiger, M., C. Cornou, M. Wathelet, G. Di Giulio, B. Knapmeyer-Endrun, F. Renalier, P.-Y. Bard, A. Savvaidis, S. Hailemichael, N. Le Bihan, M. Ohrnberger and N. Theodoulidis, 2013. Ground structure imaging by inversions of Rayleigh wave ellipticity: sensitivity analysis and application to European strong-motion sites *Geophys. J. Int.* (January, 2013) 192 (1): 207-229, doi: 10.1093/gji/ggs005

111. Sandikkaya, M.A., S. Akkar, and P.-Y. Bard, 2013. A Nonlinear Site-Amplification Model for the Next Pan-European Ground-Motion Prediction Equations, *Bulletin of the Seismological Society of America*, February 2013, v. 103, p. 19-32, doi:10.1785/0120120008
112. Mikael, A., P. Gueguen, P.-Y. Bard, P. Roux, and M. Langlais, 2013. The Analysis of Long-Term Frequency and Damping Wandering in Buildings Using the Random Decrement Technique. *Bulletin of the Seismological Society of America*, February 2013, v. 103, p. 236-246, doi:10.1785/0120120048
113. Veludo, I., P. Teves-Costa and P.-Y. Bard, 2013. Damage seismic scenarios for Angra do Heroísmo, Azores (Portugal). *Bull Earthquake Eng* (2013) 11:423-453, DOI 10.1007/s10518-012-9399-y.
114. Senouci, A., P.-Y. Bard, M. N. Farsi, E. Beck and S. Cartier, 2013. Robustness and uncertainties of seismic damage estimates at urban scale: a methodological comparison on the example of the city of Oran (Algeria), *Bull Earthquake Eng* (2013) 11:1191-1215, DOI 10.1007/s10518-012-9406-3.
115. Gueguen, P., Semblat, J. F., Bard, P. Y., & Chazelas, J. L. (2013). Interaction Site-Ville: approches expérimentales et numériques. *Bulletin des laboratoires des ponts et chaussées*, 279, p.35.
116. Semblat, J. F., Kham, M., Paolucci, R., Duval, A. M., & Bard, P. Y. (2013). Modélisation numérique des effets de site sismiques par approches modale et propagative. *Bulletin des laboratoires des ponts et chaussées*, 279.
117. Cultrera, G., V. De Rubeis, N. Theodoulidis, H. Cadet and P.-Y. Bard, 2014. Statistical correlation of earthquake and ambient noise spectral ratios. *Bull. Earthq. Eng.*, doi:10.1007/s10518-013-9576-7.
118. Derras, B., P.-Y. Bard and F. Cotton, 2014. Towards fully data driven ground-motion prediction models for Europe, *Bulletin of Earthquake Engineering*, 12-1, p. 495-516. DOI 10.1007/s10518-013-9481-0
119. Douglas, J., S. Akkar, G. Ameri, P.-Y. Bard, D. Bindi, J.J. Bommer, S. Singh Bora, F. Cotton, B. Derras, M. Hermkes, N. M. Kuehn, L. Luzi, M. Massa, F. Pacor, C. Riggelsen, M. A. Sandikkaya, F. Scherbaum, P.J. Stafford, P. Traversa, 2014. Comparisons among the five ground-motion models developed using RESORCE for the prediction of response spectral accelerations due to earthquakes in Europe and the Middle East, *Bull Earthquake Eng*, 12-1, p. 341-358 DOI 10.1007/s10518-013-9522
120. Chaljub, E., E. Maufroy, P. Moczo, J. Kristek, F. Hollender, P.-Y. Bard, E. Priolo, P. Klin, F. de Martin. Z. Zhang, W. Zhang, X. Chen, 2015. 3-D numerical simulations of earthquake ground motion in sedimentary basins: testing accuracy through stringent models, *Geophysical Journal International* 2015 201 (1): 90-111 doi: 10.1093/gji/ggu472
121. Maufroy, E., E. Chaljub, F. Hollender, J. Kristek, P. Moczo, P. Klin, E. Priolo, A. Iwaki, T. Iwata, V. Etienne, F. De Martin, N. Theodoulidis, M. Manakou, C. Guyonnet-Benaize, K. Pitilakis, and P.-Y. Bard, 2015. Earthquake ground motion in the Mygdonian basin, Greece: the E2VP verification and validation of 3D numerical simulation up to 4 Hz, *Bull. seism. Soc. Am.*, v. 105, p. 1398-1418, doi:10.1785/0120140228.
122. Garofalo, F., S. Foti, F. Hollender, P.Y. Bard, C. Cornou, B.R. Cox, M. Ohrnberger, D. Sicilia, M. Asten, G. Di Giulio, T. Forbriger, B. Guillier, K. Hayashi, A. Martin, S. Matsushima, D. Mercerat, V. Poggi and H. Yamanaka, 2016a. **InterPACIFIC project: comparison of invasive and non-invasive methods for seismic site characterization. Part I: Intra-comparison of surface wave methods.** *Soil Dynamics and Earthquake Engineering*, 82, 222-240, doi.org/10.1016/j.soildyn.2015.12.010.
123. Garofalo, F., S. Foti, F. Hollender, P.-Y. Bard, C. Cornou, B.R. Cox, A. Dechamp, M. Ohrnberger, D. Sicilia and C. Vergnault, 2016b. **Interpacific project : comparison of invasive and non-invasive methods for seismic site characterization. Part II : intercomparison between surface-wave and borehole methods.** *Soil Dynamics and Earthquake Engineering*, 82, 241-254, http://dx.doi.org/10.1016/j.soildyn.2015.12.009.
124. Derras, B., P.-Y. Bard, F. Cotton, 2016. Site-conditions proxies, ground-motion variability and data-driven GMPEs. *Insights from NGA-West 2 and RESORCE datasets Earthquake Spectra*, November 2016, Vol. 32, No. 4, pp. 2027-2056. doi: <http://dx.doi.org/10.1193/060215EQS082M>
125. Schwan, L., C. Boutin, L. A. Padron, M. S. Dietz, P.-Y. Bard and C. Taylor, 2016. Site-city interaction : theoretical, numerical and experimental crossed-analysis, *Geophys. J. Int*, 205 (2), 1006-1031, doi: 10.1093/gji/ggw049.
126. Salameh, C., B. Guillier, J. Harb, C. Cornou, P.-Y. Bard, C. Voisin and A. Mariscal, 2016. Seismic response of Beirut (Lebanon) buildings : Instrumental results from ambient vibrations. *Bulletin of Earthquake Engineering*, (2016) 14(10), p. 2705-2730. doi:10.1007/s10518-016-9920-9.
127. Régnier, J., H. Cadet and P.-Y. Bard, 2016. Empirical quantification of the impact of non-linear soil behavior on site response. *Bull. Seism. Soc. Am.*, Vol. 106, No. 4, pp. 1710-1719, doi: 10.1785/0120150199.
128. Hobiger, M., C. Cornou, P.-Y. Bard, N. Le Bihan and W. Imperatori, 2016. Analysis of seismic waves crossing the Santa Clara Valley using the three-component MUSIQUE array algorithm, *Geophys. J. Int.* (October, 2016) 207 (1): 439-456. doi: 10.1093/gji/ggw289.
129. Régnier, J., L.-F. Bonilla, P.-Y. Bard, E. Bertrand, F. Hollender, H. Kawase, D. Sicilia, P. Arduino, A. Amorosi, D. Asimaki, D. Boldini, L. Chen, A. Chiaradonna, F. DeMartin, M. Ebrille, A. Elgamal, G. Falcone, E. Foerster, S. Foti, E. Garini, G. Gazetas, C. Gélis, A. Ghofrani, A. Giannakou, J.R. Gingery, N. Glinsky, J. Harmon, Y. Hashash, S. Iai, B. Jeremić, S. Kramer, S. Kontoe, J. Kristek, G. Lanzo, A. di Lernia, F. Lopez-Caballero, M. Marot, G. McAllister, E. D. Mercerat, P. Moczo, S. Montoya-Noguera, M. Musgrove, A. Nieto-Ferro, A. Pagliaroli, F. Pisanò, A. Richterova, S. Sajana, M.P. Santisi d'Avila, J. Shi, F. Silvestri, M. Taiebat, G. Tropeano, L. Verrucci and K. Watanabe, 2016. International benchmark on numerical simulations for 1D, non-linear site response (PRENOLIN): verification phase based on canonical cases. *Bull. seism. Soc. Am.*, Vol. 106, No. 5, pp. 2112-2135, October 2016, doi: 10.1785/0120150284
130. Brax, M., M. Causse and P.-Y. Bard, 2016. Ground motion prediction in Beirut: a multi-step procedure coupling Empirical Green's Functions, Ground Motion Prediction Equations and instrumental transfer functions, *Bull. Earthquake Engineering*, 14 (12), 3317-3341. DOI 10.1007/s10518-016-0004-7
131. Maufroy, E., E. Chaljub, F. Hollender, P.-Y. Bard, J. Kristek, P. Moczo, F. De Martin, N. Theodoulidis, M. Manakou, C. Guyonnet-Benaize, N. Hollard and K. Pitilakis, 2016. 3D Numerical simulation and ground motion prediction: Verification, validation and beyond - lessons from the E2VP project, *Soil Dynamics and Earthquake Engineering* 91 (2016), 53-71 (special 6ICEGE issue), <http://dx.doi.org/10.1016/j.soildyn.2016.09.047>.

132. Maufroy, E., E. Chaljub, N. Theodoulidis, Z. Roumelioti, F. Hollender, P.-Y. Bard, F. De Martin, C. Guyonnet-Benaize, and L. Margerin, 2017. Source-related variability of site response in the Mygdonian basin (Greece) from accelerometric recordings and 3-D numerical simulations. *Bulletin of the Seismological Society of America*, 107(2), 787-808. doi: 10.1785/0120160107
133. Berge-Thierry, C., A. Svay, A. Laurendeau, T. Chartier, V. Perron, C. Guyonnet-Benaize, E. Kishita, R. Cottureau, F. Lopez-Caballero, F. Hollender, B. Richarda F. Ragueneau, F. Voldoire, F. Banci, I. Zentner, N. Moussallam, M. Lancieri, P.-Y. Bard, S. Grange, S. Erlicher, P. Kotronis, A. Le Maoult, M. Nicolas, J. Régnier, F. Bonilla and N. Theodoulidis, 2017. Toward an integrated seismic risk assessment for nuclear safety improving current french methodologies through the sinaps@ research project, *Nuclear Engineering and Design*, 323, 185-201. <http://dx.doi.org/10.1016/j.nucengdes.2016.07.004>
134. Svay, A., Perron, V., Imtiaz, A., Zentner, I., Cottureau, R., Clouteau, D., Bard P.-Y., & Lopez - Caballero, F. (2017). Spatial coherency analysis of seismic ground motions from a rock site dense array implemented during the Kefalonia 2014 aftershock sequence. *Earthquake Engineering & Structural Dynamics*, 46 (12), 1895-1917, DOI: 10.1002/eqe.2881
135. Salameh, C., Bard P.-Y., Guillier, B., Harb, J., Cornou C., Gérard J. and Almakari M., 2017. Using ambient vibration measurements for risk assessment at an urban scale: from numerical proof of concept to Beirut case study (Lebanon). *Earth, Planets and Space* (2017) 69(1), 60, DOI 10.1186/s40623-017-0641-3, <https://rdcu.be/MCz6>
136. Veylon, G., Luu, L. H., Mercklé, S., Bard, P. Y., Delvallée, A., Carvajal, C., & Frigo, B. (2017). A simplified method for estimating Newmark displacements of mountain reservoirs. *Soil Dynamics and Earthquake Engineering*, 100, 518-528, <http://dx.doi.org/10.1016/j.soildyn.2017.07.003>
137. Perron, V., F. Hollender, P.-Y. Bard, C. Gélis, C. Guyonnet-Benaize, B. Hernandez, and O.-J. Ktenidou, 2017. Robustness of kappa (κ) measurement in low-to-moderate seismicity area: insight from a site-specific study in Provence, France. *Bull. seism. Soc. Am.*, Vol. 107, No. 5, pp. 2272-2292, October 2017, doi: 10.1785/0120160374.
138. Boudghene Stambouli, A., Zendagui, D., Bard, P.-Y. and Derras, B., 2017. Deriving amplification factors from simple site parameters using generalized regression neural networks: implications for relevant site proxies, *Earth, Planets and Space* (2017) 69:99, DOI 10.1186/s40623-017-0686-3
139. Sbaa, S., Hollender, F., Perron, V., Imtiaz, A., Bard, P.-Y., Mariscal, A., Cochard, A. et Dujardin, A., 2017. Analysis of rotation sensor data from the SINAPS@ Kefalonia (Greece) post -seismic experiment: link to surface geology and wavefield characteristics. *Earth, Planets and Space* (2017) 69:124, DOI 10.1186/s40623-017-0711-6
140. Derras, B., P.-Y. Bard, P.-Y. and Cotton, F., 2017. V_{s30} , slope, H_{800} and f_0 : performance of various site-condition proxies in reducing ground-motion aleatory variability and predicting nonlinear site response, *Earth, Planets and Space*. DOI 10.1186/s40623-017-0718-z. <http://rdcu.be/v70D>
141. Theodoulidis, N., Cultrera, G., Cornou, C., Bard, P.-Y., Boxberger, T., DiGiulio, G., Imtiaz, A., Kementzetsidou, D., Makra, K. and the Argostoli NERA team, 2018. Basin effects on ground motion: the case of A high-resolution experiment in Cephalonia (Greece). *Bulletin of Earthquake Engineering* 16 (2), 529-560, doi 10.1007/s10518-017-0225-4.
142. Régnier, J., L.-F. Bonilla, P.-Y. Bard, E. Bertrand, F. Hollender, H. Kawase, D. Sicilia, P. Arduino, A. Amorosi, D. Asimaki, D. Boldini, L. Chen, A. Chiaradonna, F. DeMartin, A. Elgamal, G. Falcone, E. Foerster, S. Foti, E. Garini, G. Gazetas, C. Gélis, A. Ghofrani, A. Giannakou, J. Gingery, N. Glinsky, J. Harmon, Y. Hashash, S. Iai, S. Kramer, S. Kontoe, J. Kristek, G. Lanzo, A. di Lernia, F. Lopez-Caballero, M. Marot, G. McAllister, E. D. Mercierat, P. Moczo, S. Montoya-Noguera, M. Musgrove, A. Nieto-Ferro, A. Pagliaroli, F. Passeri, A. Richterova, S. Sajana, M. P. Santisi d'Avila, J. Shi, F. Silvestri, M. Taiebat, G. Tropeano, D. Vandeputte and L. Verrucci, 2018. PRENOLIN: International Benchmark on 1D Nonlinear Site-Response Analysis—Validation Phase Exercise, *Bulletin of the Seismological Society of America*, 2018-2, pp. 876-900, April 2018, doi: 10.1785/0120170210
143. Perron, V. , Hollender F., Mariscal A., Theodoulidis N., Andreou C., Bard P.-Y., Cornou C., Cottureau R., Cushing E. M, Frau A., Hok S., Konidaris A., Langlaude P., Laurendeau A., Savvaidis A., Svay A. (2018). Accelerometer, velocimeter dense-array and rotation sensor datasets from the Sinaps@ post-seismic survey (Cephalonia 2014–2015 aftershock sequence in Cephalonia, Greece). *Seismological Research Letters*, 89(2A), 678-687. doi: 10.1785/0220170125.
144. Sandikkaya, A., S. Akkar and P.-Y. Bard, 2018. A probabilistic procedure to describe site amplification factors for seismic design codes. *Soil Dynamics and Earthquake Engineering*, February 2018, doi 10.1016/j.soildyn.2018.01.050
145. Koufoudi, E., Chaljub, E., Douste-Bacqué, I., Roussel, S., Bard, P. Y., Larose, E., ... & Baillet, L. (2018). A High-Resolution Seismological Experiment to Evaluate and Monitor the Seismic Response of the Saint-Guérin Arch Dam, French Alps. *Seismological Research Letters*, 89(4), 1576-1582.
146. Koufoudi, E., E. Chaljub, F. Dufour, P.-Y. Bard, N. Humbert and E. Robbe, 2018. Spatial variability of earthquake ground motions at the dam-foundation rock interface of Saint Guérin - Experimental and numerical investigations, *Bulletin of Earthquake Engineering*, *Bulletin of Earthquake Engineering* 16 (5), 1751-1777. DOI: 10.1007/s10518-017-0266-8
147. Imtiaz, A., Cornou, C., Bard, P.-Y., and Zerva, A. (2018). Effects of site geometry on short-distance spatial coherency in Argostoli, Greece. *Bulletin of Earthquake Engineering* 16 (5), 1801-1827. <https://doi.org/10.1007/s10518-017-0270-z>
148. Perron, V., Laurendeau, A., Hollender, F., Bard, P. Y., Gélis, C., Traversa, P., & Drouet, S. (2018). Selecting time windows of seismic phases and noise for engineering seismology applications: a versatile methodology and algorithm. *Bulletin of Earthquake Engineering*, 16 (6), 2211-2225. <https://doi.org/10.1007/s10518-017-0131-9>
149. Laurendeau, A., Bard, P. Y., Hollender, F., Perron, V., Foundotos, L., Ktenidou, O. J., & Hernandez, B. (2018). Derivation of consistent hard rock ($1000 < V_S < 3000$ m/s) GMPs from surface and down-hole recordings: analysis of KiK-net data. *Bulletin of Earthquake Engineering*, 16(6), 2253-2284. <https://doi.org/10.1007/s10518-017-0142-6>.
150. Hollender, F., Cornou, C., Dechamp, A., Oghalaei, K., Renalier, F., Maufroy, E., Burnouf, C., Thomassin, T., Wathélet, M., Bard, P.-Y., Boutin, V., Desbordes, C., Douste-Bacque, I., Foundotos, L., Guyonnet-Benaize, C., Perron, V., Régnier, J., Roulle, A., Langlais, M. et Sicilia, D., 2018. Characterization of site conditions (soil class, V_{S30} , velocity profiles) for 33 stations from the French permanent accelerometric network (RAP) using surfacewave methods. *Bulletin of Earthquake Engineering*, 16 (6), 2337-2365. DOI 10.1007/s10518-017-0135-5
151. Foti, S., Hollender, F., Garofalo, F., Albarello, D., Asten, M., Bard, P.-Y., Comina, C., Cornou, C., Cox, B., Di Giulio, G., Forbriger, T., Hayashi, K., Lunedei, E., Martin, A., Mercierat, D., Ohrnberger, M., Poggi, V., Renalier, F., Sicilia, D., and Socco, V., 2018. Guidelines for the good practice of surface wave analysis: a product of the InterPACIFIC project. *Bulletin of Earthquake Engineering*, 16 (6), 2367-2420. <https://doi.org/10.1007/s10518-017-0206-7>.

152. Moczo, P., J. Kristek, P.-Y. Bard, S. Stripajová, F. Hollender, Z. Chovanová, M. Kristeková, D. Sicilia (2018). Key structural parameters affecting earthquake ground motion in 2D and 3D sedimentary structures, *Bulletin of Earthquake Engineering*, 16 (6), 2421-2450, <https://doi.org/10.1007/s10518-018-0345-5>.
153. Kristek, J., P. Moczo, P., P.-Y. Bard, F. Hollender and S. Stripajová (2018). Computation of amplification factor of earthquake ground motion for a local sedimentary structure, *Bulletin of Earthquake Engineering*, 16 (6), 2451-2475, <https://doi.org/10.1007/s10518-018-0358-0>
154. Theodoulidis N., Hollender F., Mariscal A., Moiriat D., Bard P.-Y., Konidakis A., Cushing M., Konstantinidou K., and Roumelioti Z., 2018. The ARGONET (Greece) Seismic Observatory: An accelerometric vertical array and associated data, SRL Early Edition, June 2018, doi: 10.1785/0220180042.
155. Imtiaz, A., Cornou, C., and Bard, P.-Y., 2018. Sensitivity of Ground Motion Coherency to the Choice of Time Windows from a Dense Seismic Array in Argostoli, Greece. *Bull. Earthquake Eng.* (2018) 16:3605-3625, <https://doi.org/10.1007/s10518-018-0320-1>.
156. Imtiaz, A., V. Perron, F. Hollender, P.-Y. Bard, C. Cornou, A. Svay, and N. Theodoulidis (2018). Wavefield characteristics and spatial incoherency - a comparative study from Argostoli rock- and soil-site dense seismic arrays, *Bull. seism. Soc. Am.*, Vol. 108, No. 5A, pp. 2839-2853, October 2018, doi: 10.1785/0120180025.
157. Aristizábal, Claudia, Pierre-Yves Bard, Céline Beauval and Juan Camilo Gómez, 2018. Integration of Site Effects into Probabilistic Seismic Hazard Assessment (PSHA): A Comparison between Two Fully Probabilistic Methods on the Euroseistest Site, *Geosciences* 2018, 8, 285; doi:10.3390/geosciences8080285
158. Sèbe, O., J. Guilbert and P.-Y. Bard, 2018. Spectral factorization of the source time function of an earthquake from coda waves, application to the Rambervillers earthquake (2003, France). *Bull. seism. Soc. Am.*, 108(5A), 2521-2542, doi: 10.1785/0120170038.
159. Brax, M., P.-Y. Bard, A.-M. Duval, E. Bertrand, R. Jomaa, C. Cornou, C. Voisin and A. Sursock, 2018. Towards a microzonation of the greater Beirut area: an instrumental approach combining earthquake and ambient vibration recordings. *Bull. Earthquake Engng*, 16:5735-5767, doi: 10.1007/s10518-018-0438-1.
160. Perron, V., C. Gélis, B. Froment, F. Hollender, P.-Y. Bard, G. Cultrera and E.M. Cushing, 2018. Can broad-band earthquake site response be predicted by the ambient noise spectral ratio ? Insight from observations at two sedimentary basins. *Geophys. J. Int* (2018), 215, 1442-1454, doi: 10.1093/gji/ggy355.
161. Senouci, A., P.-Y. Bard, E. Beck, M. N. Farsi, and S. Cartier, 2018. Mapping seismic vulnerability at urban scale: Discussion on relevant cartography representations and smoothing for urban planning purposes on the Oran case study, *Soil Dynamics and Earthquake Engineering* 115, pp. 545-563. doi 10.1007/s10518-012-9406-3. Doi doi.org/10.1016/j.soildyn.2018.08.034
162. Wen, K. L., Bard, P. Y., Sánchez-Sesma, F. J., Higashi, S., Iwata, T., & Maeda, T. (2018). Special issue "Effect of surface geology on seismic motion: challenges of applying ground motion simulation to seismology and earthquake engineering". *Earth, Planets and Space*, 70(1), 178.
163. Dif, H., D. Zendagui, and P.-Y. Bard, 2019. Implementing effects of site conditions in damage estimated at urban scale. *Bull. Earthquake Eng.* 17(3), 1185-1219, <https://doi.org/10.1007/s10518-018-0512-8>
164. Riga, E., F. Hollender, Z. Roumelioti, P.-Y. Bard & K. Pitilakis, 2019. Assessing the applicability of deconvolution of borehole records for determining near-surface shear wave attenuation, *Bull. seism. Soc. Am.*, 109(2), 621-635. doi: 10.1785/0120180298
165. Pothon, A., Gueguen, P., Buisine, S., & Bard, P. Y. (2019). California earthquake insurance unpopularity: the issue is the price, not the risk perception. *Natural Hazards and Earth System Sciences*, 19(8), 1909-1924. <https://doi.org/10.5194/nhess-19-1909-2019>
166. Bard, P.-Y., S.S. Bora, F. Hollender, A. Laurendeau & P. Traversa, 2020. Are the standard VS30-kappa host-to-target adjustments the only way to get consistent hard-rock ground motion prediction ? *Pure & Applied Geophysics*, 177(5), 2049-2068, <https://doi.org/10.1007/s00024-019-02173-9>
167. Cushing, E.M., F. Hollender, D. Moiriat, C. Guyonnet-Benaize, N. Theodoulidis, E. Pons-Branchu, S. Séplucré, P.-Y. Bard, C. Cornou, A. Dechamp, A. Mariscal and Z. Roumelioti, 2020. Building a three dimensional model of the active Plio-Quaternary basin of Argostoli (Cephalonia Island, Greece): An integrated geophysical and geological approach, *Engineering Geology*, 265, 105441. <https://doi.org/10.1016/j.enggeo.2019.105441>
168. Derras, B., P.-Y. Bard, J. Régner and H. Cadet, 2020. Non-linear modulation of site response: Sensitivity to various surface ground-motion intensity measures and site-condition proxies using a neural network approach, *Engineering Geology*, 269, 105500, doi.org/10.1016/j.enggeo.2020.105500
169. Pothon, A., P. Gueguen, S. Buisine, and P.-Y. Bard (2020). Comparing Probabilistic Seismic Hazard Maps with ShakeMap Footprints for Indonesia, *Seismological Research Letters* 91, 847-858, doi: 10.1785/0220190171.
170. Beauval, C., Bard, P.-Y., & Danciu, L. (2020). The influence of source-and ground-motion model choices on probabilistic seismic hazard levels at 6 sites in France. *Bulletin of Earthquake Eng* 18, 4551-4580 (2020). <https://doi.org/10.1007/s10518-020-00879-Z>
171. Stambouli, A. B., Zendagui, D., Bard, P. Y., & Dif, H. (2021). Influence of Site Parameters on Fourier Amplification Application for 1D Linear Viscoelastic Method. *Periodica Polytechnica Civil Engineering*.
172. Imtiaz, A., Cornou, C., Bard, P. Y., & Hobiger, M. (2021). Diffracted wavefield decomposition and multidimensional site effects in the Argostoli valley, Greece. *Geophysical Journal International*, 224(3), 1849-1869
173. Cultrera, G., Cornou, C., Di Giulio, G. & Bard, P. Y. (2021). Indicators for site characterization at seismic station: recommendation from a dedicated survey. *Bulletin of Earthquake Engineering*, 1-25, <https://doi.org/10.1007/s10518-021-01136-7>.
174. Di Giulio, G., Cultrera, G., Cornou, C., Bard, P. Y., & Al Tfaily, B. (2021). Quality assessment for site characterization at seismic stations. *Bulletin of Earthquake Engineering*, 19(12), 4643-4691. <https://doi.org/10.1007/s10518-021-01137-6>
175. Beauval, C. & Bard, P.-Y. (2021). History of probabilistic seismic hazard assessment studies and seismic zonations in mainland France, *Comptes-rendus Geoscience*, Volume 353, issue S1 (2021), p. 413-440. doi.org/10.5802/crgeos.95

176. Grendas, I., Theodoulidis, N., Bard, P. Y., Perron, V., Hatzidimitriou, P., & Hollender, F. (2022). Can site effects be estimated with respect to a distant reference station? Performance of the spectral factorization of coda waves. *Geophysical Journal International*. DOI: [10.1093/gji/ggac040](https://doi.org/10.1093/gji/ggac040)
177. Aristizabal, C., P.-Y. Bard and C. Beauval (2022). Site-Specific PSHA: Combined Effects of Single-Station-Sigma, Host-to-Target Adjustments and Nonlinear Behavior. A case study at Euroseistest, Italian Journal of Geosciences 141(1), 5-34, February 2022. Doi : [10.3301/IJG.2022.02](https://doi.org/10.3301/IJG.2022.02)
178. Molnar, S., Sirohey, A., Assaf, J., Bard, P. Y., Castellaro, S., Cornou, C., Cox, B., Guillier, B., Hassani, B., Kawase, H., Matsushima, S., Sanchez-Sesma, F.J. and Yong, A. (2022). A review of the microtremor horizontal-to-vertical spectral ratio (MHVSR) method. *Journal of Seismology*, 26(4), 653-685.
179. Hollender, F., Theodoulidis, N., Mariscal, A., Chaudat, T., Steidl, J., Bard, P. Y., & Roumelioti, Z. (2023). The “Glass Beads” Coupling Solution for Borehole and Posthole Accelerometers: Shaking Table Tests and Field Retrievalability. *Seismol. Res. Lett.* 94(4), 925-934, doi: [10.1785/0220220292](https://doi.org/10.1785/0220220292).
180. El Kadri, S., C. Beauval, M. Brax, P.-Y. Bard, M. Vergnolle and Y. Klinger (2023). A fault-based probabilistic seismic hazard model for Lebanon, controlling parameters and hazard levels, *Bull. Earthquake Engineering* 21 (7), March 2023, doi: [10.1007/s10518-023-01631-z](https://doi.org/10.1007/s10518-023-01631-z).
181. Shible, H., Hollender, F., Traversa, P., & Bard, P. Y. (2023). Ground-motion model for hard-rock sites by correction of surface recordings (Part 1): Comparison of site-response estimates at KiK-Net sites. *Bulletin of the Seismological Society of America*, 113(5), 2164-2185.
182. Shible, H., Traversa, P., Hollender, F., & Bard, P. Y. (2023). Ground-motion model for hard-rock sites by correction of surface recordings (Part 2): Correction, mixed-effects regressions, and results. *Bulletin of the Seismological Society of America*, 113(5), 2186-2210.
183. Iskandar, R., Al Tfaily, B., Cornou, C., Bard, P. Y., Guillier, B., Harb, J., ... & Zaarour, R. (2023). Estimating urban seismic damages and debris from building-level simulations: Application to the city of Beirut, Lebanon. *Bulletin of Earthquake Engineering*, 21(13), 5949-5990.
184. Causse, M., Maufroy, E., André, L., & Bard, P. Y. (2023). What Was the Level of Ground Motion across Europe during the Great AD 365 Crete Earthquake?. *Seismological Research Letters*, 94(5), 2397-2410.
185. Régnier, J., Bard, P. Y., Castro-Cruz, D., Derras, B., & Bertrand, E. (2024). Empirical approaches for non-linear site response: results for the ESG6-blind test. *Earth, Planets and Space*, 76(1), 109.
186. Danciu, L., Giardini, D., Weatherill, G., Basili, R., Nandan, S., Rovida, A., ... & Wiemer, S. (2024). The 2020 European Seismic Hazard Model: Overview and Results. *EGU sphere*, 2024, 1-36.
187. Bou Nassif, A., Maufroy, E., Lacroix, P., Chaljub, E., Causse, M., and Bard, P.-Y. (2024). The i-FSC proxy for predicting inter-event and spatial variation of topographic site effects, *Bulletin of Earthquake Engineering*, in press (accepted October 2024).
188. Bard, P.-Y., B. Derras, C. Beauval, and L. Danciu, 2024. Hazard curve exponents and importance factors for EC8-like codes: a statistical analysis of ESHM20 results throughout Europe. In preparation.

INVITED CONFERENCES

1. Bard, P.-Y., A.-M. Duval, B. Lebrun, C. Lachet, J. Riepl. and D. Hatzfeld, 1997. Reliability of the H/V technique for site effects measurement: an experimental assessment, *Seventh International Conference on Soil Dynamics and Earthquake Engineering*, Istanbul, July 19-24, 1997.
2. Bard, P.-Y., 1997. Site effects and seismic hazard assessment in urban environments, *First International Workshop on Earthquakes and Megacities, Seeheim (Germany)*, September 1-4, 1997.
3. Bard, P.-Y., M. Koller and R. Pavic, 1997. Ground motion prediction with the empirical Green's function technique: an assessment of uncertainties and confidence level, *Proceedings of the International Symposium on Natural Disaster Prediction and Mitigation*, Kyoto, Japan, December 1-5, 1997, 81-91.
4. Bard, P.-Y., M. Koller and R. Pavic, 1997. Ground motion prediction with the empirical Green's function technique: an assessment of uncertainties and confidence level, *2nd Japan-Turkey Workshop on Earthquake Engineering*, Istanbul, February 1998.
5. EUROSEISMOD group and Bard, P.-Y., 1998. Euroseismod lessons for microzonation studies, *Solicited paper, Session NH3.7 "Seismic microzonation in urban areas"*, XXIII General Assembly of the European Geophysical Society, Nice, April 24, 1998.
6. Bard, P.-Y., and M. Koller, 1998. EC8 Spectra : on the way to bad surprises ?, *Solicited paper, Session "Eurocode 8 - a case for radical reform or minor revision"*, Sixth SECED International Conference, Oxford, March 25, 1998.
7. Bard, P.-Y., 1998. Accounting for site effects in strong ground motion estimates: advances and issues, *Key-note lecture*, XXVI Assembly of the European Seismological Commission, Tel-Aviv, August 23-28, 1998.
8. Bard, P.-Y., 1999. Microtremor measurements: a tool for site effect estimation ?, *State-of-the-art paper*, Second International Symposium on the Effects of Surface Geology on seismic motion, Yokohama, December 1-3, 1998, Irikura, Kudo, Okada & Sasatani, (eds), Balkema 1999, 3, 1251-1279.
9. Bard, P.-Y., 1999. Some considerations on the use of noise for site effect estimation, *State-of-the-art paper*, Third International Conference on Seismology and Earthquake Engineering, Tehran, May 17-19, 1999.
10. Bard, P.-Y., 2001. From soil-structure interaction to site-city interaction: may urban development modify the local seismic hazard?, *18th Symposium of the International School of Geophysics "ADVANCES IN THE ASSESSMENT OF EARTHQUAKE AND VOLCANIC HAZARDS"*, Session II: Modeling and prediction of strong ground motion, EMCSC, Erice, Sicily, 5 - 15 July, 2001
11. Bard, P.-Y., 2001. Ground motion variability and interpretation of sparse strong motion records, in "Lessons learnt from past earthquakes", p. 113-116, proceedings of the *Earthquake Geotechnical Engineering Satellite Conference*, XVth International Conference on Soil Mechanics & Geotechnical Engineering, Istanbul, Turkey, August 23-25, 2001
12. Bard, P.-Y., 2001. Seismic hazard in large alpine valleys: the example of the Grenoble area and lessons for microzonation, *Invited key-note lecture*, Tenth Conference on the Italian Association of Earthquake Engineering, Potenza-Matera, September 9-13, 2001.
13. Bard, P.-Y., 2002. Array studies in the Grenoble basin: Evidence for the importance of local surface waves in earthquake, *Invited seminar, Workshop on Effects of Surface Geology on ground Motion*, Earthquake research Institute, Tokyo, January 22, 2002.
14. Bard, P.-Y., 2002. "Anomalous wavefields in surface structures and site effects during earthquakes", *Invited seminar, Centennial Anniversary of Seismological Observations in Slovakia*, Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia, 20 mars 2002.
15. Bard, P.-Y., 2002. Site effects in urban areas, *Key-note lecture*, XXVIII Assembly of the European Seismological Commission, Genova, September 2-6, 2002.
16. Bard, P.-Y., 2002. H/V Nogoshi-Nakamura's technique: Theoretical background, applications, limitations..., and more, *Invited lecture*, III Coloquio sobre Microzonificación Sísmica, Pre-coloquio sobre aplicaciones recientes en sismología, FUNVISIS, Caracas, 12-14 July 2002.
17. Bard, P.-Y., 2002. Important parameters for dynamic soil response, *Invited magistral talk*, III Coloquio sobre Microzonificación Sísmica, FUNVISIS, Caracas, 15-18 July 2002.
18. Bard, P.-Y., 2003. The EC SESAME project : present status, latest results, and perspectives, *Workshop on Effects of Surface Geology on ground Motion*, IUGG/IASPEI 2003, KKR Hotel, Sapporo, July 11, 2003.
19. Bard, P.-Y., 2004. Some features of "near-field ground motion", *IAEA CRP on Safety Significance of Near-Field Earthquakes*, Trieste, Italy, March 8-12, 2004.
20. Bard, P.-Y., 2004. Site effects in deep valleys: The Grenoble case, *Workshop on Seismic Hazard Assessment in the Taipei Basin*, Institute of Earth Sciences, Academia Sinica, Taipei, Taiwan, April 6-8, 2004.
21. Bard, P.-Y., 2005. Overview of present day issues for the assessment of propagation and local effects for large size earthquakes, *Invited talk*, International Conference "250th anniversary of the 1755 Lisbon earthquake", Lisbon, November 1-4, 2005
22. Bard, P.-Y., 2005. Un exemple d'étude intégrée de risque sismique sur la ville de Nice, *Workshop on Risk Assessment and Disaster Management*, Tunis-ENIT, 28-29/11/2005
23. Bard, P.-Y., 2006. Propagation and local effects for large size earthquakes : A brief overview of present day issues, *Invited key-note lecture*, 10th Portuguese National Geotechnical Congress, Lisbon, May 24, 2006
24. Bard, P.-Y., 2007. From noise measurements to site effects : main perspectives after the SESAME project and ESG2006 blind test, *Invited key-note lecture*, ISSR 2007, Bucharest, April 27-28, 2007
25. Bard, P.-Y., 2007. Site-City Interaction : can man modify the seismic hazard ? *Invited key-note lecture*, 10th Spanish Conference on Earthquake Engineering, Girona, May 6-9, 2007
26. Bard, P.-Y., and E. Chaljub, 2009 AGU Effects of surface topography on seismic ground motion: recent results, remaining issues and needs, AGU09, San Francisco, 17/12/2009.
27. Bard, P.-Y., 2010. From noise measurements to site conditions and site amplification : recent findings from collaborative projects in Europe, 9th International Workshop on Seismic Microzonation Risk Reduction, Cuernavaca (Mexico), February 21-24, 2010.
28. Bard, P.-Y., E. Chaljub, C. Cornou and S. Tsuno, 2010. Recent results on numerical modelling and microtremor analysis following ESG2006 blind tests, Japanese ESG group Workshop, Tokyo Institute of Technology, March 23, 2010.

29. Bard, P.-Y., 2010. Site effects: impacts, advances and challenges. *Key-note lecture, XXVI Assembly of the European Seismological Commission, Montpellier*, September 2010.
30. Bard, P.-Y., 2010. Seismic microzonation techniques : Present possibilities and recommendations for an optimal risk mitigation. Workshop on SERAMAR project, Hatay (Turkey), 30 September - 2 October 2010.
31. Bard, P.-Y., 2011. Aléa sismique local et microzonage : que peut-on faire ? Pour quoi ? Comment ?. Séminaire de Génie Parasismique, ESIB / UISF, 31 mars - 01 avril 2011, Beyrouth.
32. Bard, P.-Y., F. Hollender, E. Chaljub, P. Moczo, N. Theodoulidis and K. Pitilakis, 2011. Numerical Simulation Techniques in Site Response Analysis: Feedback from the E2VP Results (Euroseistest Verification and Validation Project), Invited Keynote Lecture, 56th International Conference of Seismology and Earthquake Engineering, 16-18 May 2011 Tehran, Iran.
33. Bard, P.-Y., F. Hollender, E. Chaljub, P. Moczo, J. Kristek, N. Theodoulidis and K. Pitilakis, 2011. Verification and validation of numerical simulation techniques : Lessons from the "E2VP" project and ongoing studies in Europe. Invited lecture, 4th IASPEI / IAEE International Symposium on Effects of Surface Geology on Seismic Motion, August 23-26, 2011 - University of California Santa Barbara.
34. Bard, P.-Y., 2011. Sismologie et génie civil : Quelques questions d'enjeu majeur, Conférence invitée, 8ème édition du Séminaire sur les technologies du béton 'Le béton, des solutions pour une construction durable', 13 et 14 Décembre 2011 à l'hôtel Mercure, Alger, Algérie
35. Bard, P.-Y., 2012. Ground Motion on Densely Urbanized Soft Soil Areas: a Review about Effects of Site-City Interaction, 9th International Conference on Urban Earthquake Engineering/ 4th Asia Conference on Earthquake Engineering (Joint Conference Proceedings), March 6-8, 2012, Tokyo Institute of Technology, Tokyo, Japan.
36. Imtiaz, A., P.-Y. Bard, C. Cornou, N. Theodoulidis, G. Cultrera, T. Boxberger, A. Zerva, M. Hobiger & F. Hollender, 2014. Diffracted wavefield and spatial variability of ground motion in a small size valley: an example in the Argostoli basin (Cephalonia, Greece). Invited lecture, International Workshop on Future Mega-Quakes, Disaster Prevention Research Institute, Kyoto-Uji, March 3-5, 2014.
37. Bard, P.-Y., 2014. Du séisme à l'endommagement, Colloque de clôture projet "LIBRIS": risque sismique : aleas, vulnérabilités et incertitudes, Beyrouth, 18-20 Novembre 2014.
38. Bard, P.-Y., 2014. Predictive estimation of strong ground motion: challenging issues, ongoing projects and recent results, Invited talk, Annual Lecture of the 35th ISET (Indian Society of Earthquake Technology) Annual Lecture, Roorkee (India), December 12, 2014.
39. Bard, P. Y., G. Cultrera, N. Theodoulidis, K. Pitilakis, D. Faeh, S. Parolai, P. Moczo, C. Cornou, E. Chaljub, A. Imtiaz, A. Rovelli, P. Bordon, F. Cara, G. Digiulio, G. Milana, V. Pessina, M. Piscituta, A. Savvaidis, K. Makra, E. Riga, F. Gelagoti, J. Burjanek, C. Cauzzi, T. Boxberger, J. Kristek, F. Hollender, C. Guyonnet-Benaize, A. Stambouli, D. Zendagui and B. Derras, 2015. Effects of surface and underground topography on ground motion : An overview of some recent European collaborative results, Invited Talk, SSA2015, April 21-23, 2015, Pasadena, SRL 86:2B, p. 703.
40. Bard, P.-Y., B. Derras, E. Chaljub, F. Cotton, L. Foundotos, N. Hollard, F. Hollender, A. Laurendeau, F. De Martin, E. Maufroy, Z. Roumelioti, N. Theodoulidis and V. Perron. Predictive estimation of strong ground motion : fully data-driven, empirical models or physics-based approaches. Invited key-note lecture, French-Japanese symposium on earthquakes and triggered hazards, Orléans, September 16-18, 2015.
41. Maufroy, E. Chaljub, F. Hollender, P.-Y. Bard, J. Kristek, P. Moczo, F. De Martin, N. Theodoulidis, M. Manakou, C. Guyonnet-Benaize, K. Pitilakis and N. Hollard, 2015. Validating the numerical simulation approach for ground motion prediction: General framework and latest lessons from the E2VP project. Invited theme lecture, 6ICEGE (6th International Conference on Earthquake Geotechnical Engineering) Christchurch, New-Zealand, November 1-4, 2015.
42. Bard, P.-Y., 2015. Mesures géophysiques de subsurface et risque sismique : intérêts, besoins et questions en suspens. Conférence invitée, Journées Scientifiques AGAP Qualité 2015, Grenoble, 17-19 Novembre 2015.
43. Salameh, C., P.-Y. Bard, B. Guillier, J. Harb, C. Cornou and M. Almakari, 2016. Using ambient vibration measurements for risk assessment at an urban scale: from numerical proof of concept to a case study IN BEIRUT (LEBANON). Invited keynote lecture, 5th IASPEI / IAEE International Symposium: Effects of Surface Geology on Seismic Motion, August 15-17, 2016
44. Bard, P.-Y., C. Aristizabal, C. Beauval, E. Chaljub, C. Cornou, B. Derras, B. Guillier, F. Hollender, A. Laurendeau, E. Maufroy, V. Perron, J. Régner and A. Stambouli, 2016. Strategies to take into account site-specific conditions and their Uncertainties, Invited keynote lecture, Workshop European ground motion models from the past to the future, 98èmes Journées Luxembourgeoises de Géodynamique, Luxembourg, 14-16/11/2016.
45. Bard, P.-Y., A. Laurendeau, F. Hollender, V. Perron, B. Hernandez and L. Foundotos, 2016. Hard-Rock GMPs versus "VS30-κ" Host-to-Target Adjustment techniques: Why so large Differences in High-Frequency Hard-Rock Motion? AGU16, Invited paper, Session S43E: Capturing the Complexity of Site Amplification II, 15/12/2016
46. Salameh, C., P.-Y. Bard, B. Guillier, J. Harb, C. Cornou and J. Gérard, 2017. Assessment of seismic damage level at urban scale: a new approach based on ambient vibration measurements with an example case study on Beirut (Lebanon). Trigger International Conference on "Trans-disciplinary Research on Iranian Geology, Geodynamics, Earthquakes and Resources", Tehran, May 6-7, 2017
47. Bard, P.-Y & T. Camelbeeck, 2018. Sismicité et caractérisation de l'aléa sismique pour les projets d'ingénierie. Zonages sismiques France / Belgique. Journée Franco-Belge GBMS/CFMS, Bruxelles, 15/03/2018.
48. Bard, P.-Y., 2018. Hazard assessment and official zonation maps: lessons from the French experience. *Invited conference, workshop "Earthquakes in the world and Lebanon in the last ten years" jointly organized by ALPS / OEA (Lebanese Association of Earthquake Engineering / Ordre des Ingénieurs et Architectes)*, Beirut, 26-27/11/2018.
49. Bard, P.-Y., 2021. Principles and methodology for the selection of input ground motions for the dynamic analysis of dams. 2021 Workshop of the "Dams and Earthquakes" European Working Group, 15/06/2021. (<https://www.youtube.com/channel/UCDadRBeCphJ0nlxElkKVAew>; <https://www.youtube.com/watch?v=ybc5AE2jPBk>)
50. Bard, P.-Y., 2021. Des géosciences à l'aléa sismique en zone de sismicité modérée : l'exception française. Conférence à l'intersection de l'Académie des Sciences sur le thème "Aléa, Risque et Société", 30 /06 / 2021

51. Bard, P.-Y., (2021). Physics-based site amplification prediction equation: a dream at reach ? Invited keynote lecture, 6th IASPEI / IAEE International Symposium: Effects of Surface Geology on Seismic Motion, Kyoto, August 30-September 1, 2021.
52. Bard, P.-Y., L. Danciu & C. Beauval, 2022. Hazard curves, spectral shapes, importance coefficients and return periods: insight from recent PSHA studies. Invited theme lecture, Third European Conference on earthquake Engineering and Seismology, Bucharest, September 4-9, 2022.

INVITED SEMINARS

1. Politecnico Milano, Décembre 1983 (Two-dimensional response of sediment-filled valleys: theoretical results and observations).
2. Instituto de Ingenieria, UNAM, Mexico, Mars 1986 (Site effects on soft sediments)
3. Université Charles, Prague, Juin 1986 (Site effects: from theory to application)
4. Office of Strong Motion Studies, CDMG Sacramento, Janvier 1987 (A study of site effects in Mexico City)
5. University of Southern California, Los Angeles, Février 1987 (A study of site effects in Mexico City)
6. United States Geological Survey, Menlo Park, California, Mars 1987 (A study of site effects in Mexico City)
7. Office of Strong Motion Studies, CDMG Sacramento, Août 1987 (Analysis of CSMIP structural strong motion data)
8. Université de Thessalonique, Octobre 1987 (Experimental and theoretical studies about the seismic response of sediment-filled valleys)
9. Disaster Prevention Research Institute, University of Kyoto, Août 1988 (Strong ground motion in Mexico City during the great Michoacan earthquake).
10. Ecole Nationale Polytechnique d'Alger (Département Génie Civil), Mai 1989 (Analyse expérimentale du comportement dynamique des structures de génie civil sous chargement sismique réel).
11. Ecole Nationale Polytechnique d'Alger (Département Génie Civil), Mai 1989 (Effets de site et risque sismique: de leur compréhension physique à la réglementation).
12. ENEA/ENEL, Rome, 01/03/1990 -Seminario sui problemi di previsione del moto sismico locale su base accelerometrica - (Numerical prediction of site effects: possibilities and difficulties.)
13. Institut Supérieur d'Etudes et de Recherches Scientifiques et Techniques, Djibouti, Mars 90 (Les effets géotechniques du séisme de Loma Prieta (Californie) du 17/10/1989: analogies et enseignements pour Djibouti).
14. Ecole Nationale Polytechnique d'Alger (Département Génie Civil), Mai 1990 (Le séisme de Loma Prieta (Californie) du 17/10/1989: aspects sismologiques et géotechniques)
15. Università degli studi di Trieste, Italie, Décembre 1991 (I : La méthode du nombre d'onde discret: principaux résultats) , (II : Les effets de site à Benevento, Italie: méthode d'étude, résultats et problèmes)
16. Geophysical Institute, Slovak Academy of Sciences, Bratislava, Septembre 1994 (Effects of surface geology on ground motion: a review of recent results and remaining issues)
17. Cairo Technical University, Decembre 1994 (Seismic Hazard and Site Effects: effects of surface geology on ground motion, liquefaction , slope stability)
18. International Institute of Earthquake Engineering and Seismology (IIEES), Tehran, May 1995. (Short course (12 h) on "The new methods of seismic microzonation and site-dependent seismic design")
19. Disaster Prevention Research Institute, University of Kyoto, Août 1995 (Recent developments about effects of surface geology on ground motion : physical phenomena and estimation methods).
20. Civil Engineering and Architecture Department and Electrical Engineering Department, Drexel University, Philadelphia, Août 1996 (Important issues related to site response and ground motion estimation in seismology).
21. International Institute of Earthquake Engineering and Seismology, Téhéran, Septembre 1996 (EUROSEISTEST/EUROSEISMOD projects: progress report and learnings in the engineering seismology and earthquake engineering fields).
22. Ecole Polytechnique Fédérale de Zurich, Suisse, 21 Janvier 1997 (Site effects and seismic hazard assessment in urban areas)
23. International Institute of Earthquake Engineering and Seismology, Téhéran, Novembre 1997 (Seismic actions for large size structures).
24. Instituto de Ingenieria, UNAM, Mexico, 4 Février 1999 (Microtremor measurements: a tool for site effect estimation ?).
25. Instituto de Ingenieria, UNAM, Mexico, 9 Février 1999 (Site effects in Grenoble: similarities and differences with Mexico City?).
26. Laboratoire de Mécanique et d'Acoustique, Marseille, 9 Juillet 1999 (De l'interaction sol-structure à l'interaction "site-ville" sous sollicitation sismique).
27. University of Karlsruhe, November 9, 1999 (Seismic microzonation : an example and some issues).
28. Instituto de Ingenieria, UNAM, Mexico, 13 Juillet 2000 ("Simple and robust measurements of the duration increase due to site conditions: an example at Euroseistest").
29. Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava, Slovakia, 20 mars 2002. ("Anomalous wavefields in surface structures and site effects during earthquakes").
30. FUNVISIS, Caracas, Venezuela, 14 juillet 2002. ("Use of microtremors for site effect analysis").
31. Université de Grenoble, 15/10/2002. Aléa sismique en milieu urbain, Conférence "Midi-sciences"
32. Bard, P.-Y., 2004. Aléa sismique en milieu urbain : enjeux et questions scientifiques. Séminaire Ile de France, Marne-la-Vallée, ENPC, 13 Mai 2004.
33. Bard, P.-Y., 2005. Transports, Ouvrages, Sols ... et Séismes : enjeux et problématiques, Semaine Transports et Ouvrages, ENTPE Vaulx-en-Velin, 24/01/2005.
34. Bard, P.-Y., 2005. Séismes: aspects mécaniques, Exemple du séisme de Sumatra, Conférence ENPC, Marne-la-Vallée, 26/01/2005
35. Bard, P.-Y., 2006. Transports, Ouvrages, Sols ... et Séismes : aperçu des enjeux et problématiques, Semaine Transports et Ouvrages, ENTPE Vaulx-en-Velin, 11/01/2006.
36. Bard, P.-Y., 2006. Aléa sismique en milieu urbain : enjeux et questions scientifiques. *Conférence à l'Ordre des Ingénieurs, Beyrouth, Liban*, 5 Avril 2006.

37. Bard, P.-Y., 2006. Les risques sismiques dans la région grenobloise, *Conférence à l'Université Inter-âge du Dauphiné*, 12 Mai 2006.
38. Bard, P.-Y., 2006. Les résultats du projet SISMOVALP : utilisation pratique, *Conférence SIA-Valais*, Martigny (Suisse), 4 Octobre 2006
39. Bard, P.-Y., 2007. "Facing the seismic hazard in urban areas : scientific and technological challenges", *Cycle de conférences "French Science Today"*, National Geophysical Research Institute, Hyderabad, India, 03/12/2007.
40. Bard, P.-Y., 2007. Seismic hazard in urban environments : can man modify the hazard ?, *Cycle de conférences "French Science Today"*, Indian Institute of Technology, Roorkee, India, 06/12/2007.
41. Bard, P.-Y., 2008. Définition réglementaire de l'aléa sismique: évolutions en cours. Construire Parasismique en Rhône-Alpes, Grenoble, 17 janvier 2008.
42. Bard, P.-Y., 2008. Constructing synthetic accelerograms with physically consistent aleatoric components. Invited seminar, AREVA, Paris, 11/12/2008.
43. Bard, P.-Y., 2009. Construction et prévention parasismique : éléments comparatifs France-Liban. Séminaire Ordre des Ingénieurs de Beyrouth / Institut de Recherche Industrielle / Union des Ingénieurs et Scientifiques Francophones, Beyrouth, 3-4 mars 2009.
44. Bard, P.-Y., 2010. Array measurements and processing of ambient vibrations. Ege University, Izmir, October 14, 2010.
45. Bard, P.-Y., 2010. "Ingénierie parasismique et plans de prévention des risques sismiques, Journée Scientifique VOR "Risques Naturels et Vulnérabilité des Infrastructures", Grenoble, 21/10/2010.
46. Bard, P.-Y., A. Senouci, S. Cartier et E. Beck, 2012. Apport de l'étude de vulnérabilité au séisme dans la requalification des tissus urbains. Etude de cas : la ville d'Oran. Présentation à l'Université Saint-Joseph, Beyrouth, 26 janvier 2012
47. Bard, P.-Y., 2012. Rappel sur les séismes, aléa sismique et sismologie de l'ingénieur. Commémoration du 13ème anniversaire du séisme d'Aïn-Temouchent - Génie Parasismique: du séisme à l'ouvrage Aïn Temouchent, Algérie, 4-5 Décembre 2012.
48. Bard, P.-Y., 2014. Why is ILL required to perform specific seismic hazard studies ? Facts and issues about the seismic hazard in the Grenoble area. ILL Colloquium (Séminaire Institut Laue-Langevin), March 14, 2014, Grenoble, France (<https://www.ill.eu/fr/presse-et-infos/colloquia-seminars-talks/ill-colloquium-series/2014/>).
49. Bard, P.-Y., 2014. Evolution récente des niveaux d'aléa sismique : les sismologues sont-ils vraiment fous ? Journée AG CEA-DPIE, CEA Cadarache, 27/03/2014
50. Bard, P.-Y., 2014. Sismologie et Génie Civil : Enjeux et défis pour parvenir à une réduction effective du risque sismique. Le point de vue d'un sismologue français. Conférence invitée, Institut Français de Bucarest, 08/05/2014.
51. Bard, P.-Y., 2014. Prediction of strong earthquake ground motion : present capabilities, limitations and challenges. Invited talk, Seismology seminar, Bratislava (Slovakia), June 10, 2014.
52. Bard, P.-Y., 2015. Earthquakes, seismicity and seismic hazard, with a special focus on the Grenoble area, "Séminaire interne "La sismique dans les tableaux basse tension", Schneider Electric, Grenoble, 2 et 30 avril 2015.
53. Bard, P.-Y., et al., 2017. The Franco-Hellenic collaboration in Argostoli, 2011-2017: goals, accomplishments and perspectives. Projects in the European and French/Greek frameworks (NERA, SINAPS@, ...). Séminaire d'information à l'invitation de la préfecture d'Argostoli, Argostoli, Grèce, 25/09/2017.
54. Bard, P.-Y. & F. Hollender, 2018. Caractérisation de l'aléa sismique régional et local : réflexions en cours dans le cadre des Recommandations AFPS2020. Institut Seism, CentraleSupélec Saclay, 13/11/2018.
53. Bard, P.-Y., 2023. Site amplification factors for generic to site-specific seismic hazard assessment: an overview of recent and ongoing developments in France and Europe. Invited seminar, Disaster Prevention Research Institute, Kyoto/Uji, 07/04/2023
54. Bard, P.-Y., 2023. State-of-art applied seismology in France and its applications: From non-invasive surveys to site response analysis and seismic hazard assessment: a (subjective) French-European experience. Invited seminar, SEG / ESG Japan, Tokyo, 01/05/2023.